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*Rev Dr Pandinell*  
*from the Author*

AN ESSAY  
ON THE  
NATURE, AGE, AND ORIGIN  
OF THE  
SANSKRIT WRITING AND LANGUAGE.

(EXTRACTED FROM VOL. XVIII., NOT YET PUBLISHED, OF THE TRANSACTIONS OF THE ROYAL IRISH ACADEMY.)

BY

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OF DUBLIN.



Πάταξον μὲν, ἄκουσον δέ.

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M.DCCC.XXXVIII.



# AN ESSAY,

&c. &c.

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ALL the letters of the Hebrew text of the Bible, in its original state, were employed as signs of syllables, beginning with consonants and ending with vowels. The vowel part of every syllable was variable, and it was left to the judgment of the reader to determine that part for each place of the occurrence of a letter, according to what his knowledge of the language showed him the context required. Even still, near four-fifths of the vowels must, in reading the present unpointed text, be supplied in a similar manner; the only difference being, that they are no longer considered to be included in what the letters express, the powers of those letters having been decomposed, in consequence of which they are now used as consonants. The remaining portion of the text at present, indeed, exhibits signs for the vowel, as well as the consonantal, ingredients of the syllables, three of the letters being occasionally diverted from their original use to the purpose of vocal designation; but where those letters are now so employed, or rather where they were so in former times as far back as their pronunciation can be traced,\* there they constitute no part of the original

\* This distinction is necessary on account of the difference between the ancient and the modern pronunciation. Thus the word עברי, which signifies a Hebrew, is now read HĕBRI (the mark under the H is used merely to point out that there is a difference in power between ע and the other Hebrew gutturals, although that difference is not now exactly known; and the Italic serves to show that there is no separate sign for it in the original group); but its Greek translation, Ἑβραῖος, proves that, at the time when the Septuagint version was made, it was pronounced HeBRaY, its sound terminating with that of the English monosyllable ay; and, consequently, that its final character belonged always to the text, although it is now read as a vowel letter when the writing is unpointed.

writing in the sacred volume, and were introduced into it by the Jews after the Septuagint version had made them but very slightly acquainted with the value of such signs. Had they previously become more familiar with the subject, they would of course have adopted at least five vowel-letters instead of three, and they would have vocalized the whole of the text instead of only about one-fifth part of it. But however imperfectly and irregularly this vocalization was made,—and the very imperfection and irregularity which are observable in it, now contribute to the proof of its human origin ;—still at the time of its insertion it was a most providential addition to the sacred text, to preserve the true meaning of the word of God; an object which in most, though by no means in all instances, it has certainly effected.

For the view of which an outline has now been laid before the Royal Irish Academy, I am indebted to a strong conviction long impressed upon my mind, that by that Providence which has so constantly and visibly protected the Bible, means must ever have been placed within human reach of reconciling the original text with its earliest and most important version; in consequence of which I was led into the frequent practice of selecting passages where they now disagree in sense, and trying how, with least alteration, the Hebrew might be written in such a manner as that the Greek should become its accurate translation.\* Upon comparing what I had thus written out with the original, I found that, in a very great number of instances forming a large proportion of my trials, the difference produced in the Hebrew words was only in the letters *Waw* and *Yod*, when used as vowel signs ;—a fact in itself sufficiently striking, but which could not be accounted for, in the way that first occurred to me, by the supposition of an exchange of those letters having taken place in the course of successive transcriptions; because, although they are at present very like, they were quite different from each other in point of shape in the more ancient Hebrew writing. What, then! suppose the letters in question,—where they now appear in the unpointed text as vowel-signs; or in the pointed text, as quiescents;—were not

\* This mode of reconciling the Greek version with the original was first suggested to me by a few attempts so made, which I found in Bythner's *Lyra Prophetica*; and I was convinced of its being the right way of proceeding, by the consideration that the same groups of Hebrew letters, in the unpointed text, admit of different readings, and, consequently, of different senses. Bythner was prevented from making any effectual progress in this operation, by the circumstance of his taking the vowel points into account, as if they formed a constituent part of the original Hebrew writing.



in the original record at the time when the Greek translation of it was made ! Upon following up this thought I found, with the aid of certain consequences arising from it which the investigation suggested, that in far more than nine cases out of ten—perhaps I should come nearer to the true proportion in rating it at nineteen cases out of twenty—all difference between the Hebrew and its Greek version could at once be removed. And the unquestionable truth of the position on which I proceeded, was confirmed to me by inspection of the Samaritan text, in which it is, indeed, the same set of letters that are employed as vowel-signs, but the two I have already mentioned are much more frequently inserted, and the *Haleph*, though not very often, yet oftener than in the Hebrew ; which proves beyond a doubt that all three were introduced into it at a later period, and when the use of such signs had become better understood among the Shemitic tribes. Thus the present Hebrew, the Samaritan, and the Greek memorials of the word of God, enable us to ascend to one common skeleton text ; to the antecedent existence of which they all bear testimony ; since, according to the different vocalizations of that original text, it admits of being read so as to agree with each of the three records. But I must add that, as the reading which is indicated by the Septuagint version is the oldest, so it is the best of the three ; for, whenever the inspired writers of the New Testament quote from the Old, they sanction this reading, even where it differs from the Masoretic one\* ; and generally, in case of such difference, it is supported also by the Samaritan vocalization.

Causes of delay, over which I had no control, and interruptions which I did not anticipate when I published a preliminary volume with reference to this subject, have interfered with the progress of my labours in its more immediate development, and retarded the appearance of the second volume much longer than I could wish ; but before another year elapses, I trust I shall be able to come forward with a corroboration of the views I have already submitted to the judgment of the public, together with such solutions of difficulties and answers to objections as have occurred to me, in explanation and support of the matter to

\* Instead of the vocalization used in the unpointed text, the Masoretic one, which is grounded on it, is here mentioned, as restricting the original to the same sense in a more complete manner. The two systems, however, agree, as far as the ruder one extends, not entirely, but only for the most part.

which I have just adverted. In the mean time I hope enough has been here stated to justify my availing myself of the disclosure, so far as to apply it to an object of a merely literary nature, though one of some interest; namely, the determination of the origin of the graphic system of the Brahmans.

Although alphabetic writing is, as I have elsewhere endeavoured to prove, of divine origin, yet the miracle employed to convey an apprehension of its nature and use to the human mind was not extended beyond what was necessary for the purpose. Accordingly in the first writing of this kind all the characters were originally used with syllabic powers; and as man was capable of rising by natural means from a syllabary to a superior alphabet, so he was left to his own exertions to accomplish this object. The great step necessary to his ascent depended on his discovering that the vowel parts of syllables admitted of but few varieties; on his disengaging those parts from the whole syllables; and on his classifying them and representing them by signs. Before the Greek transmuted the gutturals of the old Phœnician alphabet (most of which were of no service to him in their original use) into vowel-letters, he must have gone through some process of this kind in his thoughts; and to his genius and sagacity is due the beautiful invention which has given such an immense superiority to the alphabetic writing of Europe over that of Asia. As long as Hebrew continued a living language the syllabic signs answered every requisite purpose; but when it went quite out of familiar use, the ruder method of designation was no longer sufficient for preserving the sacred text. Before this was actually the case, and as soon as ever the necessity for an alteration arose, we find matters so arranged that the Bible was translated into Greek, and that a very important improvement was introduced into Hebrew writing itself. The national prejudices of the Jews, and their backwardness in literary acquirements, would lead one to suppose they would be the very last people to avail themselves of the improvement in question, yet they appear to have been the first. They certainly took this improvement immediately from the Greek writing, and it is common to them with all the Shemitic nations of Asia;\* but so very peculiar a mode of vocalization,—whereby

\* It is, I believe, chiefly owing to the circumstance of all those nations having adopted the same method of vocalization, that it has been assumed to be an essential part of the writing employed by each of them, and that its adventitious nature has been so long concealed. But if once attention be turned to the various proportions in which the letters applied to the use of this method are inserted

an *h* is occasionally made to stand for *a* or *e*; a *y* for *e* or *i*; and a *w* for *o* or *u*;—is not by any means likely to have been adopted by different people independently of each other. In accordance with the supposition of this vocalization having commenced with the Jews, is the fact, that it is more imperfect in the Hebrew writing than in any other Shemitic system in which it is used; it is fuller,—and of course was later inserted,—in the Samaritan, and is still fuller in the Chaldee, the Syriac, the Arabic, and the Persian systems.\* On the other hand, the methods of pointing the Hebrew, the Syriac, and the Arabic, which were separately invented to supply the defects of the older mode of expressing vowels that is common to them all, vary considerably from each other; and the very curious vocalization of the Ethiopic or Abyssinian system, which, as well as that first annexed to the Hebrew, was derived immediately from the Greek, is of a nature wholly different from any that has been yet alluded to. The period when the Ethiopic writing received this improvement shall be presently investigated.

It is to the system last mentioned that I propose tracing the origin of the writing which is connected with the Sanscrit language. But as some very gross errors with respect to the nature of alphabets in general, and of the Abyssinian syllabary in particular, have of late been confidently and plausibly advanced; their refutation becomes necessary as a preliminary step to my progress. The erroneous views to which I allude will be found collected together in the following passage of a paper of M. Abel-Remusat, late Professor of Chinese in the Royal College at Paris, which was read to the *Institut de France* in the year 1820. “Par syllabaire j’entends ici une réunion de signes syllabiques indépendans entre eux, sans analogie les uns avec les autres, et par conséquent indécomposables ou indivisibles. Cette propriété constitue le second degré dans les trois sortes d’écritures que les grammariens distinguent, le système mixte entre l’écriture alphabétique et l’écriture figurative. On ne saurait en rapprocher la prétendue écriture syllabique éthiopienne, moins encore celles des Hindous ou des Tartares.

in the several systems; and still more, if the total difference of the vocalization annexed to the Ethiopic system be considered in connexion with this subject; the circumstance in question must cease to mislead the judgment.

\* The modern Persian *language* is such a medley of different tongues that it is difficult to determine to what class it should be referred; but as to the modern Persian *writing*, there can be no doubt of its being Shemitic, as the alphabet employed in it differs from the Arabic one, only by the addition of a few letters.

Ce sont là de véritables alphabets, dont on forme à volonté un syllabaire, comme nous le faisons nous-mêmes avec les lettres de notre alphabet.”—*Memoires de l’Institut*, tom. viii, p. 55. This passage was written in reference to the Japanese syllabary, which the author contended to be the only one as yet discovered in actual use (in order that he might make out the Corean system to be not a syllabary, but a complete alphabet of consonants and vowels); although in his volume of *Recherches sur les langues Tartares*, published in the very same year, 1820, he endeavoured to prove that the Tartars formerly employed syllabaries of their own invention. Passing by, however, this inconsistency, I have to observe, that in the extract before us, short as it is, there are yet included four very material errors.

In the first place, the Professor, in expressing his conception of a syllabary, has omitted its essential property,—namely, its being limited to some fixed number of terms;—instead of which he has substituted an accidental one, and made its nature in part depend on that of the characters by which the syllabic powers of the system are represented. The nature of the characters undoubtedly may give rise to the subordinate distinctions of different species; but that it is not essential to the general idea of a syllabary, is evident from a consideration of the very one which gave occasion to his remarks. The Japanese syllabary can be written in seven or eight different ways, namely, with the *kata-kana* characters, or the *fira-kana*, or the *yamato-kana* characters, &c. Yet still, the series of powers thereby denoted remaining in every respect unchanged, the system continues to be essentially one and the same; and is called either the Japanese syllabary from the people who make use of it, or the *I-ro-fa* syllabary, from the first three powers of the series. If any one choose to speak of the *kata-kana* syllabary, or the *fira-kana*, or the *yamato-kana* syllabary, I do not object to this mode of expression; as it is only making the distinction of subordinate species which must still come under the common denomination of the *I-ro-fa*, or the Japanese syllabary. M. Klaproth, I observe, in a formal treatise upon this syllabary, published in the volume of the *Nouveau Journal Asiatique* which came out in the year 1829, expresses himself indifferently in either way. The title of his paper is as follows: “Sur l’Introduction de l’Usage des Caractères Chinois en Japon, et sur l’Origine des différens Syllabaires Japonais.” Here he speaks of different syllabaries; but, when introducing the subject, he more

correctly, as I conceive, talks of one syllabary written with different sets of signs. “ On sait que les Japonais se servent à présent de deux genres d’écriture, c’est-à-dire, qu’ils emploient, ou les caractères ideographiques des Chinois, ou *un syllabaire* composé de quarante-sept syllabes, qui sont représentées par diverses series de signes.”—tom. iii, p. 27.

It is not, however, necessary to appeal to any authority on the point in question; common sense shows that every phonetic system must, in its general nature, depend essentially on the powers which it represents, and on them alone. Thus, for instance, our alphabet is called the English alphabet, whether it be exhibited in Roman or Italic characters, in capitals or in small letters, in those appropriate to print, or in such as are employed in manuscript; but if the powers be changed to those of French pronunciation, though the collection of characters remains precisely the same—for of late the French have introduced *w* into their writing for the expression of foreign sounds—yet the system is changed, and can no longer be termed the English alphabet. What led M. Abel-Remusat to attach to the shape of letters an importance that does not really belong to it, was probably the circumstance, that, if the characters be indivisible into parts corresponding to the elements of the syllables they represent, those syllables are less likely to be decomposed. There is, however, no necessary connexion between the one decomposition and the other. The characters might be indivisible in the manner just mentioned, and yet the syllables be separated into their component parts (of which the Hebrew letters afford a very striking instance); and on the other hand they might be divisible in a way which would obviously give assistance to the decomposition of the syllables, and yet (as shall presently be shown) that decomposition not take place. But let the conformation of the characters aid the reader ever so much in this analysis, and tend ever so much to suggest the operation to his thoughts, still as long as he failed to decompose the syllables, the system would yet remain, in reference to his apprehension, no more than a syllabary.

In the second place, M. Abel-Remusat was quite unwarranted in representing syllabic writing as distinct from alphabetic, in a degree at all parallel or analogous to that in which it is separated from hieroglyphic designations. It is true that a syllabary is intermediate, in the order of learning, between less imperfect alphabets on the one hand, and hieroglyphs on the other (for we never could rise to a

conception of consonantal powers except through such a medium,—a point which has been fully explained in my publication on the origin of alphabetic writing); but it is by no means intermediate between them in its nature; on the contrary, it is of the same general nature as an alphabet, in those respects in which the latter can be brought into comparison with an ideagraphic system. They both belong to phonetic writing, and still more, to a common species of such writing; inasmuch as both are distinguished by the essential property of being confined to some determinate number of signs. However inferior, then, a syllabary may be to a system of consonants and vowels, it is, notwithstanding, entitled to the same general denomination. Hence I have, throughout the part of my work which has been already published, called such systems syllabic alphabets; and in doing so I was justified not only by the real state of the case, but also by precedents of high authority. Thus, although in the portions of the Ethiopic version of the Bible which have been printed, the powers of the letters are undoubtedly syllabic, and are described as such by all the earlier writers on the subject; yet the collection of those letters was commonly denominated by them an alphabet, and may be seen in the Prolegomena of Bishop Walton's Bible, as also in the short grammatic treatise prefixed to Dr. Castell's *Heptaglot Lexicon*, printed with the title of *ALPHABETUM ÆTHIOPICUM* placed over it. The Chinese Professor, however, attached more weight to the opinions of certain modern grammarians, whom he has not mentioned by name; and with them he decided that a syllabary is not an alphabet, but "a mixed system between alphabetic and hieroglyphic writing." I should not object to this new use of old established words, if it had not a tendency to perplex the mind, and to give a very erroneous view of the subject under consideration.

In the third place, the most extraordinary of the mistatements of M. Abel-Remusat in the passage before us, is the assertion that the Ethiopic system of phonetic signs is not a syllabary. If indeed he had insisted that this system was not composed of "alphabetic and hieroglyphic writing mixed together," the position would be at once admitted. But this truism could not be his meaning, as the putting it forward would be merely fighting with a shadow; for no one ever contended that the Ethiopic characters were partly hieroglyphs. After all then, to render him intelligible and read in his words something more than mere unmeaning sounds, he must be considered as deserting his own definition

immediately after having given it, and as using the term syllabary here in its ordinary acceptation. Accordingly, by his denial of the Ethiopic alphabet being a syllabary, he must be understood to maintain, that the powers of the letters employed in this writing are not syllabic. I confess I was startled by this part of the passage under examination when I first read it, and should not have been more surprised by a bold denial of the Greek and Roman alphabets being systems of consonants and vowels. Had the latter declaration been made with ever so much confidence, of course I should not have thought it necessary to refute it; but as the Ethiopic writing is not so generally known, a short account of it here may perhaps not be superfluous.

When by the discovery made by the Portuguese navigators of a passage round the Cape of Good Hope, a direct communication was opened with Abyssinia, and intercourse with the inhabitants became in consequence more frequent, the attention of the learned was turned to the very peculiar kind of writing employed by that people; and great interest was excited by the appearance of a version of the Scriptures in a language and character then first brought into notice in Western Europe. The study of this version was much facilitated by the nature of the language, which was found to have a very close affinity to Hebrew;\* it was encouraged even by the Popes, from a desire to provide means for the extension of their spiritual dominion over a distant empire; and it was considerably promoted by their having granted an asylum and permanent resi-

\* The curious fact of an African people speaking a dialect of Hebrew is, perhaps, best accounted for by Nicephorus (Callistus) in his Ecclesiastical History; where, incidentally describing the extensive district of Abyssinia between Axum and the ocean near its junction with the Red Sea, he informs us, that the inhabitants called themselves Assyrians; that up to his time they spoke the Assyrian (or Chaldee) language; and that they were the descendants of colonists who had been transported thither from Syria by Alexander the Great. Certainly it must have been some very despotic measure by which their forefathers were driven to so ungenial a clime; and no one was more likely than the Macedonian conqueror to have put this into execution, both from the extent of his power and the violence of his disposition. The passage to which I refer, is as follows:—  
*Ταύτης τοίνυν τῆς ἐρυθρᾶς τοῖς ἔξωθεν μέρεσιν ἐν ἀριστερᾷ Ἀυξουμίται εἰσὶν, ὧν ἡ μετρό-  
 πολις Ἀυξουμις. Πρὶ δ' αὐτῶν εἰσὶν ἐπὶ τὸν ἑξωτάτω καθήκοντες Ὡκεανὸν πρὸς ἀνατολὰς,  
 Ἀσσύριοι ταύτῃ δὲ τῇ κλήσει, καὶ παρ' αὐτοῖς ὄνομα φέρουσιν· ὃς Ἀλέξανδρος ὁ Μακε-  
 δὼν, ἐκ Συρίας ἀναστήσας, ἐκεῖ κατέκισεν· ὃι δὲ ἐς δεῦρο τῇ πατρίᾳ γλώσσει χρῶνται.—*  
*Historia Ecclesiast. lib. ix, c. 18.*

dence in Rome to Abyssinian exiles, of whom great numbers were, about that time, forced to leave their own country by Mohammedan persecution. Through the advantage of such aids, a knowledge of this writing was soon obtained, and parts of the Ethiopic translation of the Bible were printed in the Roman capital under the superintendence of native Abyssinians; the Psalms and Song of Solomon, during the remarkable pontificate of Leo the Tenth,\* and the New Testament not many years after. Then followed from the press, in different countries of Europe, grammars, lexicons, harmonies, in all of which, and also along with the portions of Scripture first published, were given the Ethiopic alphabet represented as a syllabary. From the parts of this version which were printed, it was ascertained to be one of great antiquity, as it agrees with the oldest known Greek copies of the Bible in many passages which are otherwise written in less ancient MSS. Hence much attention was paid to the work, and several of the most able scholars and divines of the sixteenth and seventeenth centuries engaged in its examination; but however they may have differed among themselves upon other points, not one of them, as far as I can find, ever dissented from the above representation of the nature of the Ethiopic letters. To oppose such authority it is plain that a very strong case should be made out; but the Professor has offered nothing against it more than his own opinion, which he did not support by any proof, nor indeed could he; for the slightest examination of the alphabet itself will be sufficient to show that his view of the matter was totally erroneous.

\* It is but justice to Leo to state, that the part of this version which came out under his auspices was much more accurately executed than the remainder of the original publication. This will, I conceive, be clearly seen upon a comparison of the reprints of the two parts in Bishop Walton's Polyglot Bible, in which the Psalms are given much freer from errors of the press than the New Testament.



*Ethiopic Alphabet.*

Hoi	ሀ	ሁ	ሂ	ሃ	ሄ	ህ	ሆ	ሐ	He.
	hă	hu	hi	hā	hē	hě	ho		
Law	ለ	ሉ	ሊ	ላ	ሌ	ል	ሎ	ረ	Lamed.
	lă	lu	li	lā	lē	lě	lo		
Haut	ሐ	ሁ	ሂ	ሃ	ሄ	ህ	ሆ	ሐ	Heth.
	hă	hu	hi	hā	hē	hě	ho		
Mai	መ	ሙ	ሚ	ማ	ሜ	ሞ	ሙ	ጠ	Mem.
	mă	mu	mi	mā	mē	mě	mo		
Saut	ሠ	ሡ	ሢ	ሣ	ሤ	ሥ	ሦ	ሰ	Samekh.
	să	su	si	sā	sē	sě	so		
Rees	ረ	ሪ	ሪ	ሪ	ሪ	ሪ	ሪ	ሪ	Resh.
	ră	ru	ri	rā	rē	rě	ro		
Saat	ሰ	ሱ	ሲ	ሳ	ሴ	ስ	ሶ	ሰ	Shin.
	să	su	si	sā	sē	sě	so		
Qaf	ቀ	ቁ	ቂ	ቃ	ቄ	ቅ	ቆ	ቀ	Qoph.
	qă	qu	qi	qā	qē	qě	qo		
Bet	በ	ቡ	ቢ	ባ	ቤ	ብ	ቦ	ቢ	Beth.
	bă	bu	bi	bā	bē	bě	bo		
Taw	ተ	ቱ	ቲ	ታ	ቴ	ት	ቸ	ተ	Taw.
	tă	tu	ti	tā	tē	tě	to		
Harm	ሐ	ሁ	ሂ	ሃ	ሄ	ህ	ሆ	ሐ	Heth.
	hă	hu	hi	hā	hē	hě	ho		
Nahas	ነ	ኑ	ኒ	ና	ኔ	ኖ	ኑ	ነ	Nun.
	nă	nu	ni	nā	nē	ně	no		
Halph	ለ	ሉ	ሊ	ላ	ሌ	ል	ሎ	ለ	Haleph.
	hă	hu	hi	hā	hē	hě	ho		
Kaf	ከ	ኩ	ኪ	ካ	ኬ	ክ	ኸ	ከ	Kaph.
	kă	ku	ki	kā	kē	kě	ko		
Waw	ወ	ዉ	ዐ	ዑ	ዒ	ዓ	ዔ	ወ	Waw.
	wă	wu	wi	wā	wē	wě	wo		
Hayin	ዐ	ዑ	ዒ	ዓ	ዔ	ዕ	ዖ	ዐ	Hayin.
	hă	hu	hi	hā	hē	hě	ho		

Zai	H za	H zu	H zi	H zā	H zē	H zē	H zo	י	Zayin.
Yaman	P ya	P yu	P yi	P yā	P yē	P yē	P yo	י	Yod.
Dent	D da	D du	D di	D dā	D dē	D dē	D do	ד	Daleth.
Geml	G ga	G gu	G gi	G gā	G gē	G gē	G go	ג	Gimel.
Tait	T ta	T tu	T ti	T tā	T tē	T tē	T to	ט	Teth.
Pait	P pa	P pu	P pi	P pā	P pē	P pē	P po	פ	Pe.
Tzadai	T ta	T tu	T ti	T tā	T tē	T tē	T to	צ	Tzade.
Zzap	Z za	Z zu	Z zi	Z zā	Z zē	Z zē	Z zo	צ	Tzade.
Af	F fa	F fu	F fi	F fā	F fē	F fē	F fo	פ	Phe.
Psa	P pa	P pu	P pi	P pā	P pē	P pē	P po	פ	Pe.

After each series, above exhibited, of syllabic signs formed by variations of a common letter and called by a common name, is subjoined in the same line the corresponding Hebrew letter with its name, to show the connexion which in many instances obviously holds between those words. The period when this alphabet was derived from the Hebrew or some other Shemitic syllabary is lost in impenetrable obscurity; but whenever it was that the primary formation of the system took place, it must at that time have consisted solely of its first column of characters; the remaining columns could not have been added till after the Abyssinian had, in his conception of the subject, arrived at a distinct classification of the vocal elements of his syllables. The different pointings that are placed under the consonantal parts of the guttural powers, are intended merely to intimate that those powers differ from each other, though what is peculiar to each is now no longer known.

I have not marked the quantity of the powers in all the columns of the above table; as there is some difference in this respect between Bishop Walton's

and Dr. Castell's representations, chiefly in consequence of the latter author having taken into account the effect produced by the position of syllables in words, the first and penultimate syllables being generally read long, and the remaining ones short. There is a difference also between them as to the vocal part of the powers in the sixth column, which is represented by Dr. Castell as a *y*. But as this part, except when in the first or penultimate syllable of a word, is pronounced rapidly, and in consequence indistinctly, it is very immaterial whether it be denoted by a short *e* or short *y*. These differences may possibly have been in some measure occasioned by want of uniformity in the practice of a people, who could not be expected to have very exact notions on the subject, as it appears they were unable to disengage consonants from syllables. But from whatever causes they may have arisen, they have no relation to the inquiry before us; they may perhaps affect the certainty as to the length of the powers, and as to the sound of the vocal part of those in the sixth column; but they do not in the remotest degree bear against their general nature as syllabic. The only powers about which there can be any question under this head, are those belonging to *Halph* and *Hayin*, which are usually represented by series of vowels; but it is evident that both sets of powers could not at first have been merely vocal, as in that case they would have been exactly the same, and one of the letters, as superfluous, would never have been introduced into the alphabet; nor is it at all likely that either set were formerly such, since to a certainty neither of the Hebrew characters which are called by the same names was originally a vowel-letter. But if any doubt on the subject should remain upon the reader's mind, it will, I trust, be entirely removed by inspection of some specimens of this writing which shall be immediately laid before him, one of them having a strong bearing on this very point. Admitting, however, that in later times when this system was printed, both letters were used to denote vowels, still even thenceforward by far the greater number of the powers remain syllabic. In order to make use of the foregoing table it is necessary to observe, that, when a character drops the vocal part of its own power to share that of a preceding character in the formation of a compound syllable, it is the variety of shape that occurs in the sixth column which is employed; and also that the letters are read from left to right, in the same direction as in European legends, the Ethiopic writing differing in this respect from the graphic systems of all the other Shemitic languages.

Now if it be allowed that proper names are pronounced nearly in the same way in cognate languages, it will be very easy to verify the powers above assigned to the Ethiopic letters, so far at all events as to show that they are syllabic; viz. by exhibiting any such words from the text of the Ethiopic version. For this purpose the names *David* and *Abimelech* are here selected from the title of Psalm xxxiv., as also *Zion* and *Jerusalem* from Psalm li. 19\* ; just as they are written in the version in question and in the unpointed Hebrew text, except that the prefixes are in both kinds of writing omitted. After each group of characters the pronunciation is given in Roman consonants and Italic vowels; but when there is a separate character added to express the vocal part of a syllable, as is sometimes the case in the copies of the Hebrew Bible which are at present extant, then its power is denoted by a Roman vowel, and it is itself exhibited in an open form, to distinguish it from the ancient letters of the group, and mark its adventitious nature.

- |                |                         |
|----------------|-------------------------|
| 1. ደዋት (DaWiT) | 2. ለቤሙሌክ (HaBiMeLeK)    |
| ወ (DaWiD)      | ሐቤሙሌክ (HaBiMeLeK)       |
| 3. ጥራ (TZeYoN) | 4. ለሃሩሳሌም (HiYaRuSaLeM) |
| ረ (TZiYON)     | ሃሩሳሌም (YeRUSHaLeM)      |

To apply to the point under examination any of these examples, as for instance, the first of them;—if we look for the character ደ in the Ethiopic alphabet, we shall find it in the series of letters which are in common termed *Dent*, and in the first column, where the power assigned is *Da*; in like manner we shall find ዋ in the series *Waw*, and third column, with the power *Wi*, and ት in the series *Taw*, sixth column, with the power *Te*. But the vocal part of the powers in the sixth column is very short, except when those powers form the first or penultimate syllable of a word; and when they form the last, it becomes imperceptible like the Shewa quiescent of the pointed Hebrew. According, then, to the representation of the powers of the characters which is given in the table, the group ደ ዋ ት expresses the word *DaWiT*; while, on the other hand, from the position of the same group in the title of Psalm xxxiv. in the Ethiopic version,

\* The number of each Psalm after the tenth is diminished by one (in consequence of the eleventh being joined to the tenth) in the Ethiopic version, which herein agrees with the Septuagint, and differs from the Hebrew.

we may be certain that it denotes the Royal Psalmist, and, consequently, that it must have been read by some combination of sounds nearly approaching to *DaWiD*, the ancient pronunciation of his name in Hebrew and, after the Hebrew, in the Septuagint. This group, therefore, fully verifies the powers assigned to the first and second of its elements, and that of the third by approximation. The second group, examined in like manner, will serve to establish the correctness of the powers attributed to every one of its ingredient characters without exception. In the third group, although it may be proved in the same way that the powers of the characters are syllabic, yet it is questionable whether the vocal part of the first power be *e* or *y*; and as it is here long, (from the position of the syllable in the word expressed), the difference is perceptible; while the example seems to accord better with Dr. Castell's than the Bishop's representation of the powers of the sixth column, unless it be allowed that *e*, followed by the consonant *y*, has a sound approaching to that of *i*. The first three names are pronounced very nearly the same in the Septuagint as in the Hebrew, and, consequently the groups we have been examining do not enable us to determine from which text the Ethiopic version was made; but the fourth group clearly marks the derivation of this version immediately from the Septuagint. The Greek translator was unable exactly to express the first syllable of *Yerushalem*, and substituted for it *Hie*. The Ethiopic writer has also given two syllables in place of the original one, but not from any inability to express that one; and therefore he must evidently have done so from his having translated from the Greek. It deserves moreover to be here noticed, that in his imitation of *Hie*, he has expressed *e* by the syllable *ya*; which clearly points out that the series of letters termed *Halph* and *Hayin* did not denote mere vowels at the time when he made his translation; for if they had, it surely is by one of the characters of either series that he would have represented the second part of *Hie*. It may be also remarked, that the first name is represented exactly by the same number of letters in the Hebrew as in the Ethiopic writing; and as those in the derivative writing have undoubtedly syllabic powers, there is even hence some probability of the corresponding elements of the group belonging to the parent system having been at first employed with like powers. If the letters in the Ethiopic designation of this name were divested of the marks which serve to confine the terminations of the syllables they denote to particular sounds, the whole group would then be pre-

cisely analogous in its use to the Hebrew one; in which the vowel parts of the syllables expressed are left to be determined by the reader through the means of his familiarity with the spoken denomination of the Jewish sovereign in question. The first letter, indeed, of the Ethiopic group is destitute of any mark, as it belongs to the first column of the alphabet, which is now limited to syllables ending in *a*; but before the addition of the other columns this one evidently could have had no such limitation; and then the Ethiopic method of denotation was exactly of the same nature with the original Hebrew one, not only in reference to the name which I have here happened to pitch upon as an example, but also with regard to every part of the two kinds of writing.

To show the close affinity which subsists between the two languages, I here subjoin the first sentence of the Lord's Prayer, Matthew, vi. 9, from the Ethiopic version; with the equivalent Hebrew expression immediately under each group, just as in the preceding examples.

ለቤ (HaBuNa)	ዘከላላ (ZaBaSSaMaYaT)
አብኑ (HaBINU)	שבשמים (SHeBBaSHSHaMaYiM)
Our Father	who—in the very heavens,
ይቅዱስ (YeTQaDDaS)	המלך (SeMKa)
יִתְקַדֵּשׁ (YiTHQaDDeSH)	שִׁמְךָ (SHēMeKa)
hallow itself (i. e. hallowed be)	thy name.

The corresponding groups in the two ways of writing the sentence will be found to agree in their roots; in their inflexions (excepting the formation of the plural number of the noun); in the reflective form of the verb, and the peculiarity of substituting that form for the passive one; in their prepositions; in their pronouns;\* and in the manner in which those pronouns enter into combination with the principal terms; whence it is probable that they may, in some degree at least, agree also in the collective sounds denoted by them. If this inference be ad-

\* I admit that the syllable prefixed to the Ethiopic expression for *in the very heavens*, and used with the signification of the pronoun *who*, is not derived from the relative *שֶׁ* but from the demonstrative *הוּא*. This latter pronoun, however, is sometimes used in the Hebrew, as it is here in the Ethiopic, with a relative sense.

mitted, it affords, in its application to the passage before us, another verification of the powers of the Ethiopic letters ; not indeed as exact a one as that derived from comparing proper names, but still sufficient to show to a certainty that the general nature of those powers is syllabic, which is all that is necessary to be proved upon the present occasion.

The ground of M. Abel-Remusat's mistake on this subject,—a mistake indeed which pervades the whole of his treatise on the origin of the Tartar alphabets,—is his having overlooked the difficulty which illiterate people experience of conceiving a consonantal power. It is true that the Abyssinian had a clear conception of vowels,—this is obvious from the bare inspection of the table of his alphabet ;—and he must have had an equally clear one of consonants, if he had arrived at those vowels by any analysis made by himself of the syllabic sounds of his language. But what would be the inevitable consequence? Having by this process discovered the powers of a superior alphabet, he could not be ignorant of the nature of his own discovery ; he must have been aware of its value, and thence unquestionably would have availed himself of its use. It is quite contrary to all that is known of human nature to suppose that any people would encumber their memories with a system of 182 characters (besides twenty more which do not regularly form part of the alphabet), if they had themselves found out a way by which they could write equally well, or indeed better, by means of only thirty-three signs ; namely, twenty-six for consonants, and seven for vowels. Nations, I admit, often reject the inventions that have originated in other countries, through prejudice against what is foreign, or through ignorance of the resulting benefits. But neither impediment here lies in the way ; and no well ascertained instance can be produced from the history of the world, of men arriving by their own efforts of thought at an important improvement in any art, and yet foregoing its advantage.

The fault of the Professor's reasoning on this point appears to have been, that he began at the wrong end. Having himself a clear conception of a consonantal as well as a vowel power, he took it for granted, that the Abyssinian had equally clear notions on the subject, and was able to conceive an articulation separate from any vowel sound by which it might be rendered perceptible to the ear. Well, then ! the poor African having quite distinct in his thoughts the elements of syllables, would take care to have their signs equally distinct ; and the very

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nature of the characters of his system would at once point out the mode of effecting their decomposition to one who was already acquainted with the decomposition of their powers. Nothing, then, could be more easy to him than the rising from his syllabary to a superior alphabet; and it is absurd to suppose that he would not avail himself of the advantage of this alphabet which was so completely within his reach. Hence, in spite of all former evidence, and in spite of present appearances, it would, from such reasoning, necessarily follow, that the Abyssinian really used the elements of his graphic system as consonants and vowels. To this extraordinary conclusion at all events M. Abel-Remusat actually came, whether the train of thoughts which led him to it was exactly that which I have described, or one in any respect different. Now, as I apprehend, the safest mode of proceeding is to commence with what may be known to a certainty, not merely through the concurrent evidence of great numbers of men eminent for learning and ability, but also by our own observation. The letters belonging to the text of the Ethiopic Bible are, to a certainty, and beyond all question, therein employed with syllabic powers. The Abyssinian, therefore, did not know how to make out of his system a superior alphabet; and, consequently he could not have had any clear conception of a consonant.

From the fact which has been just established, it follows that the Abyssinian did not, by means of his own penetration and sagacity, acquire the conception of vowels which enabled him to make the classification, exhibited in the table of his system, of the syllabic powers that he referred to each letter. For he could not, by any analysis of the articulate sounds expressed by those letters, have arrived at vowels without reaching, by the same process, to consonantal powers. The addition, therefore, to his alphabet of all the columns after the first,—by means of which his syllables are, in reference to their vocal ingredients, methodically arranged and definitely expressed,—must have been derived by him from some external source. But he could not have taken the hint which guided him in this matter from observation of any of the other Shemitic systems; as the several modes of pointing them did not commence till long after; and if he had first met with the older vocalization that is common in kind, though not in quantity, to all those systems, he would, it is plain from analogy, have adopted it, in like manner as all others placed in the same circumstances had done, however he might have subsequently differed from them in his mode of supplying the defects of that



primary vocalization. There was, consequently, no other quarter from which he could have learned the use of vowel designation except from Greek writing; and he, as well as the Jew, must have had his notions on the subject suggested to him immediately from that writing. Accordingly, his translation of the Bible affords very decisive evidence that, when he made it, he had only the Septuagint version, and not the Hebrew Scriptures, in his possession; and, in further corroboration of this view of the case, it may be observed, that the vocal part of the syllabic powers of his alphabet has an obvious affinity to the vowels of the Greek system. For although all vowel sounds equally admit of an open and close state, yet in both those systems the distinction is made in the denotation of only two of them; while one of the vowels so distinguished (*e*) is the same in each system, and the total number of vowels in each is also the same. On the other hand, the Ethiopic syllabary in its primitive state, it is plain, was derived either immediately or remotely from the ancient Hebrew one. Before the vocalization of either system had taken place their corresponding elements must evidently have been used in the same manner with powers that were precisely similar; and even still above half of those elements are called by names that are very nearly the same. The difference in the shapes of the characters is no objection to this connexion between the two alphabets; some few of the corresponding ones are like each other, when the more ancient forms of the Hebrew letters are referred to; and if still older elements of each series were extant, their similarity would probably be yet more striking. Besides in tracing a connexion of the kind, we must look for the proof of it far more in the powers than in the shapes of the characters which are compared. Thus our numeric figures, though different in form from the Indian ones, are on all sides admitted to be thence derived, because they are employed in the same way, and their values are regulated by the same principle. And still further it may upon this point be observed, that there are several alphabets, confessedly derived from the Sanscrit one, from which, notwithstanding, they wholly differ in the shapes of their letters. Again the difference in the order of the letters of same name does not bear against the Hebrew origin of the Ethiopic system; for there is as great a difference at present in point of arrangement between the Hebrew and Arabic letters which correspond with each other, and yet from their being used with the same numeric powers, it is plain that their order must likewise have originally been the same.

A very close limit to the age of the Ethiopic scriptures may be deduced from evidence which history supplies connected with the subject. The Christian religion was first established in Abyssinia by Frumentius, who was for this purpose consecrated Bishop of Axum in the year 335 by the celebrated Athanasius, Patriarch of Alexandria. The circumstances which led to the conversion of the Abyssinians are told by Rufinus in the ninth chapter of the first book of his Ecclesiastical History, who closes his account by stating that he had it immediately from a companion of Frumentius;—"Quæ nos ita gesta, non opinione vulgi, sed ex ipso Edesio, Tyri presbytero postmodum facto, qui Frumentii comes prius fuerat, referente cognovimus." The Abyssinians themselves claim a much earlier date for their conversion to Christianity, and assert that they were previously followers of the Jewish creed. But their account of the matter is so obviously fabulous as not to be entitled to any notice; and the part of it last mentioned is refuted even by their own version of the Bible; for surely if they had been Jews by religion, they would have had the Old Testament in the original Hebrew,—in a tongue cognate to their own, and from which consequently they could have much more easily translated the Scriptures than from Greek. It is further recorded in history, that the Abyssinians were again converted to Christianity in the reign of the Emperor Justinian, that is, about two hundred years after the first time; from which it would appear that they had in the interval relapsed into paganism. But it is not necessary to consider the authorities on which the narrative of this second conversion rests; as the first is the only one to which it is material here to attend.\*

But to return to the passage upon which I have been commenting;—I shall conclude my remarks on it by pointing out, in the fourth place, M. Abel-Remusat's error in supposing that the Abyssinians formed the syllabic powers of

\* Scaliger, in his learned work *De Emendatione Temporum*, notices the second conversion of the Abyssinians; but very unaccountably overlooks the first, which is fully as well authenticated. His words upon the subject are as follows:—"Jactant vetustatem Christianismi a Candace Regina et Philippo Apostolo. Sed id manifesto falsum convincit Ecclesiastica Historia. Anno enim XV. Justiniani Imperatoris, Adad Rex Axumitarum vovit, si vinceret Omeritarum vicinorum Regem, se Christianum factum iri. Victo rege Omeritarum, missis ad Justinianum legatis, impetravit ab eo episcopos, qui primi omnium tunc Christianismum in Æthiopia publicarunt."—*De Emend. Temp.* lib. vii, p. 682.

their system in the same way as Europeans combine syllables out of more simple ingredients. At the bottom of this hypothesis lies the very identical fallacy which has been exposed in the preceding instance, namely, the assumption that the Africans in question had a distinct conception of both the ingredients of syllabic sounds ; whereas it has been proved that they had only one of those ingredients clear in their thoughts. The hypothesis may still further be shown to be erroneous from the manner in which the Abyssinians recited their alphabet. I do not here speak of their present practice (with which, I confess, I am not acquainted), but of that which prevailed among them at the time when parts of the Ethiopic version were printed under the superintendence of individuals belonging to their nation. The seven columns of their alphabetic table they called by names which had no relation whatever to the vowel sounds in those columns, viz.—1. Gheez.—2. Chaab.—3. Sals.—4. Erab.—5. Hams.—6. Sads.—7. Sab. And their mode of recitation was as follows. Let us, for instance, take the series of syllabic powers classed under the letter *Bet*. They first called out *Bet Gheez*, and then pronounced the syllable *Ba* ; next, *Bet Chaab*, after which they pronounced *Bu* ; next, *Bet Sals*, after which, *Bi* ; and so on. As much as to say, that *Bet*, as written in the column *Gheez*, sounds *Ba* ; as written in the column *Chaab*, sounds *Bu* ; and so on. Here evidently is no indication of the Ethiopian having had any perception of the compound nature of the powers recited by him. The fact is, he no more looked on such powers as complex than the Japanese now does, who, although he has vowels, as well as what are more properly called syllables, denoted by letters of his system, yet considers the latter species of sounds to be as perfectly simple and undecomposable as the former. On the contrary, the European is taught signs for the separate ingredients of articulate sounds before he is made to bring them together for the expression of those sounds ; which circumstance of itself must draw his attention to the fact of there being some composition in syllabic powers ; and when, through this observation, and the practice of repeating *b a*, *ba* ; *b e*, *be* ; *b i*, *bi*, &c., he has arrived at the distinct perception of what is denoted by consonants, he dismisses from his thoughts the cumbrous machinery by which he acquired this knowledge. He must indeed commit to memory the combinations of letters representing words which are peculiarly spelled ; but he retains as the elements of his orthography, not the hundred, or more, simple syllables, *ba*, *be*, *bi*, &c. &c., but merely the

four or five and twenty consonants and vowels of which those syllables are composed. While, on the other hand, the Abyssinian was forced to recollect all through, the two hundred and two signs of his system, together with their powers.

The errors which have in the foregoing pages been exposed respecting the essential nature of alphabetic writing, it may be here by the way noticed, were committed in a capital which affords, by its libraries and learned societies, the greatest assistance to studious investigation; and are those, not merely of a man of some talent and research, but also of one who devoted particular attention to a branch of the very subject in question. Now when, under such circumstances, an author has betrayed ignorance of the essential principles of alphabetic construction, is it to be supposed that they are discoverable by men of the lowest grade in the scale of intellect, and destitute of all external aid, such as those to whom the independent invention of alphabets has been attributed? But although a knowledge of what is essential to an alphabet is not necessary to the making use of one already formed, or to the deriving from that one others by imitation; yet it is obviously requisite to the original and independent formation of any such system.

Still further I have to remark, that with human inventions there is always connected something subject to external observation, which consequently leaves room for the operation of what is called accident or chance in their production; and that it is only from small beginnings that they ascend by gradual improvement to great and noble specimens of art. But in the imaginary case of the independent contrivance of an alphabet, there is nothing external upon which observation can act, till after some system of phonetic signs is constructed; and the getting at the first principle of the construction is by far the most difficult part of the entire problem. The articulate sounds of language are much too numerous and too fleeting to form of themselves an immediate subject for classification; and no remedy can be derived from the substitution of signs, unless they be chosen in such a manner as to avoid the use, to any considerable extent, of homophones or diaphones, that is, of different signs for the same sound or of the same sign for different sounds. But experience shows that mankind are quite incapable of attending to this caution till they are acquainted with the reason for it, or till they have the advantage of an example to follow, which latter aid is

excluded on the supposition of an independent invention. Here, then, lies one of the many and, as I conceive, insurmountable difficulties of the imaginary case under consideration. Man cannot construct an alphabet, by his own unaided powers of intellect, till he has discovered the principle of its construction; and he cannot find out the principle until he gets under his observation a system of signs, selected according to this very principle of which he is as yet ignorant. Whether the reader will be more struck with this difficulty than with those previously submitted to him in the part of my work which has already been published, I cannot take upon me to determine; but I am induced to place the subject before him in different points of view, in the hopes of gaining his assent to the correctness of one way of considering it, if not of another. I do not, however, expect him to acquiesce in mere abstract reasoning unsupported by actual experience. What I principally rely on, is the fact that, not merely no alphabet has ever yet been proved to have been produced by the independent contrivance of man, but also every alphabet for which such origin is claimed can be clearly shown from its own nature to be a derivative one. I have already established, I will venture to say, beyond a doubt, and by the strongest evidence, both internal and external, the Greek origin, as well of the alphabetic writing of the Egyptians—to which, by the way, they never attained till after their conversion to Christianity,—as also of the phonetic writing previously employed by them in their hieroglyphic system. I shall now for like purpose proceed to the consideration of the Sanscrit alphabet.

This alphabet is here exhibited in the character (in which it is principally written) called *Deva-nagari*, which signifies, according to some authors (for all are not agreed upon the point), “the written language of angels.” This meaning of the term is just worth noticing on account of the accordance of the opinion it implies with that which almost universally prevailed in the ancient world, of letters having been a gift to man from some one or other of the gods. The diffusion of this notion through countries and ages so widely separated asunder seems to indicate the remains of an early tradition on the subject, and consequently tells somewhat in favor of the divine origin of the first alphabet, though not of those for which the honor has been claimed by pagan nations. The letters of the system now to be considered are arranged as follows, the power of each being placed immediately under it.

*Sanscrit Alphabet.*

अ	आ	इ	ई	उ	ऊ	ऋ	ॠ	लृ	लृ
ä	ā	i	ī	u	ū	ri	ri	li	li
ए	ऐ	ओ	औ	अं	अः				
e	i	o	ou	an	ah				
क	ख	ग	घ	ङ					
ka	kha	ga	gha	na					
च	छ	ज	झ	ञ					
cha	chha	ja	jha	na					
ट	ठ	ड	ढ	ण					
ta	tha	da	dha	na					
त	थ	द	ध	न					
ta	tha	da	dha	na					
प	फ	ब	भ	म					
pa	pha	ba	bha	ma					
य	र	ल	व	—					
ya	ra	la	va						
श	ष	स	ह	क्ष					
sha	sha	sa	ha	ksha					

The first ten vowels are arranged in pairs in which the short or close state of the sound precedes the long or open one. By the open *a* is meant either that which occurs in the word *father* or that in *water*; by the open *i*, the pronunciation of this vowel which is used in *machine*; by the open *u*, that in *rule*; by *e*, the open power of this vowel which occurs in *they* or *there*, not the close one in *then*; by *o*, the open sound of it in *hope*, not the close one in *hop*; by the last *i*, and by *ou*, the English sounds of those letters, as in *wine*, *pound*;—sounds nearly unknown in the Shemitic languages or those of the western continent of Europe, which the English have derived from their German ancestors (though they do not express them by the same letters), and which are common to the German, the Greek, the Sanscrit, and the Chinese colloquial systems.

The first twenty-five of the characters which follow the vowels are arranged very methodically, in horizontal lines, according to the organs with which they are pronounced;—those in the first line being looked upon as gutturals; those in the second, as palatals; those in the third, as linguals; those in the fourth, as dentals; and those in the fifth, as labials;—and in columns, so that the second and fourth columns should give the corresponding powers of the first and third with the addition of an aspiration, and the fifth column the nasal sounds of the several series. The first N of the nasal column (as likewise its equivalent, the N by which the fifteenth vowel is terminated), corresponds in power with the *ng* of the word *thong*; the second, or palatal N, has a power somewhat resembling that of *ng* in the word *engine*. The third N differs probably but little in power from the fourth (which agrees with ours), as, in the course of derivation and inflection, it is usually changed to that fourth. The addition of *h* to the power of a letter does not produce the same effect as with us; for instance by *pha* is not meant a sound having any resemblance whatever to *fa*, but merely *pa* uttered with a strong emission of the breath; whence some write this power *p'ha*, to distinguish it from what *pha* expresses in our use of the combination.

From the scheme of the alphabet above given, an European would be apt to suppose it a system of vowels and consonants; but in point of fact it is only a syllabary as it is, for the most part, used by all of the eastern nations, without exception, who write with it. The letters which appears to us as consonants, have not properly consonantal, but syllabic powers; and express syllables ending with the short vowel *a*. When the vowel part of the syllables to be expressed by these letters is different, then their shapes are modified, more clumsily indeed than in the Ethiopic system, but still in a manner precisely analogous. Thus, according as the vowel termination of the syllable denoted by the first letter is changed, this character is written in the following different ways; the articulate sound corresponding to each variety of shape being placed immediately under it.

क	का	कि	की	कु	कू	कृ	कृ
kā	kā	kī	kī	kū	kū	krī	krī
कु	कु	के	कै	को	कौ	कं	कः
kū	kū	ke	ki	ko	kou	kan	kah

E

Each of the other letters undergoes similar modifications of shape, as well as similar alterations of its syllabic power; and the Indian learner is taught to repeat, first the sixteen syllabic powers of the letter क *ka* in the order here given; next the sixteen powers of the letter ख *k'ha* in the same order; next the sixteen of the letter ग *ga*; and so on till he has gone through the sixteen times thirty-four powers of the system. From his being practised to repeat and made to get by heart this collection of 544 syllables as one complete in itself, there is a likelihood that the vowel-letters did not originally belong to his alphabet. I am aware that the present mode of representing the subject is to state, that the vowel-marks by which the syllabic characters are modified, are derived from the vowel-letters;—a representation which is suggested by the analogous appearance of the characters produced from the combination of two or more of syllabic powers,—but there are very few of the letters and marks in question between which there is the slightest visible connexion; and where there is any, it surely may have arisen just as well from amplifying a mark into a letter, as from contracting a letter into a mark. That where such connexion exists it was produced in the former way, is rendered probable not only by the practice above alluded to, but also by the name of the Sanscrit alphabet, viz. केखा *KeKHo*, which is evidently derived from the two letters क and ख, just in the same manner as that of the Greek system is from its first two letters, *Alpha* and *Beta*, or that of the Japan series from its first three terms, *I-ro-fa*; whence it would appear that, when this alphabet received its present denomination, *ka* and *k'ha* must have been its first two characters, and consequently that the vowel-letters, which now precede them, must have been subsequently added to the system.

It is quite impossible that men who had formed the syllabic part of this system by their own efforts of thought, could be blind to the immense advantage of resolving it into consonants and vowels, instead of continuing to use it as a set of syllabic signs; the circumstance, therefore, of the Indians still employing it in the latter manner, and particularly of their doing so after they had got vowel-letters, affords, as I conceive, the most conclusive evidence that they did not arrive at it by invention. But I have discussed this point so fully in the case of the Ethiopic syllabary, that it is unnecessary for me to dwell upon it here, any further than to observe that the arguments previously urged, bear more strongly on the system now under consideration; inasmuch as, from its greater number of



syllabic powers, the inconvenience of making the inferior use of it is far greater; and also because it is still more easily convertible into a superior alphabet, since it is not merely the case that its characters are obviously resolvable into sets corresponding to the elements of the syllabic powers, but they are virtually so resolved since the introduction of the vowel-letters; and all that is wanted on the part of those making use of it, is a clear conception of the nature of a consonant.

So far the point is made out from a general comparison of the two syllabaries; but there are particular considerations, applicable to the Sanscrit one alone, which lead very forcibly to the same result. In the first place, that this syllabary is not an invention of the Hindoos, is quite obvious even from the single circumstance of its being unsuited to their language; for it cannot be applied to the expression of all Sanscrit syllables, but merely serves to denote those which begin with a consonantal power; and, consequently, must have been derived by imitation from some foreign system connected with a tongue which, like the Ethiopic, includes no articulate sounds except such as are of the latter description. In the second place, it is positively absurd to suppose this people to have invented their syllabary unless they had a distinct idea of consonantal powers; for it would be altogether impossible for them to determine the syllabic sounds to be reduced to a common class without their clearly perceiving what was common to those sounds. For instance, supposing the arrangement of their syllabary to be entirely their own work, unaided by the observation of any prior system, how could they possibly have selected the syllables *kā k̄ā, kī k̄ī, kū k̄ū*, &c. as those to be represented by a common character variously modified in shape, unless they had a distinct conception of the proper power of *k*? But that they have no such conception of this or any other consonantal power, is evident not only from their foregoing in the greater part of their writing the advantages of a superior alphabetic system, but also more immediately from what is known respecting their mode of considering the subject. For instance, whenever any of their characters is not modified by a vowel mark, they consider it as the sign of a syllable ending in *ā*, and say that *ā* is essentially inherent in it; evidently thereby showing that, as they are unable to utter any articulation without the help of some vowel-sound, so they are unable even to conceive it without the same help. Again, when a character

is of necessity used by them in a manner in which it would be looked upon by us as a consonant, that is, when it closes the syllable expressed by the preceding character, and is pronounced by the aid of the vowel part of that syllable, dropping its own vocalic power,—in which case an Ethiopic character is also necessarily used as a consonant;—they then call this letter कंदीत *KānDiT*, i. e. *curtailed*; and so make it perfectly obvious that they do not look upon the power of a character in any other light than as syllabic, even when the circumstances of the case would appear almost to force upon them a different conception of the subject.

Here I have to notice a circumstance, which seems in some measure at least to indicate, that the framers of the alphabet before us were persons habituated to hieroglyphic writing. In the Sanscrit language there occur several articulate sounds commencing with a combination of two or even of three consonantal powers, and which are, in consequence expressed by the Pandits by combinations of two or three of their syllabic characters.\* Each of those combinations is reduced to a single character, for a reason which shall presently be considered; but the point to which I now wish to draw attention is, that in the reductions in question, very little care is shown to preserve any likeness of the resulting compounds to their component characters. In most of the compositions not more than one of the ingredient letters can be recognized,—at least by those who are not very skilful in the analysis;—and the consequence is, that the learner has thrown upon him very unnecessarily the burden of committing to memory a great number of additional characters, which it is as difficult for him to fix in his thoughts as if they had no relation whatever to those simpler ones with which he was previously acquainted. Such indifference on the part of the framers of the system to the numbers of extra-characters with which they encumbered it, looks very like the effect of familiarity with a species of writing in which the amount of symbols is indefinite. In support of this view of the subject may be noticed the superabundance of letters in the alphabets of the Siamese and Tonquinese,—

\* In this case also, the characters—that is, all except one of them in each combination,—drop the vowel part of their powers, and so must practically have suggested to the Pandits some idea of consonants; though they have failed to excite a clear one, as is evident from what has been already stated.

a deterioration of their respective systems, which is obviously attributable to the influence upon their phonetic practice produced by the habit of Chinese writing ; —and as the like effect is observable in the Sanscrit system, we cannot rationally avoid ascribing it to a like cause. Hence it would appear, that the Sanscrit writing was the first of an alphabetic nature that was employed by the Brahmans ; and that they had no previous syllabary of a ruder kind devoid of all marks expressive of vowel powers.

We now come to the inquiry, whence was this alphabet derived ?—the answer to which, I must premise, I do not feel myself called upon to give. All that is requisite to my theory as to the origin of alphabetic writing, is to show that the system in question is a derivative one ; and of so much, I trust, the reader has been already satisfied.—As a matter, however, of curiosity I enter upon this investigation, and confess I shall be disappointed if the considerations, here proposed, are not looked upon as going a great way towards deciding the point at issue.

In the first place, the Sanscrit syllabary could not have been derived from any of the Shemitic kinds of vocalized writing, employed in Asia, which have come down to our times. For in all those different kinds, a vowel letter is occasionally used immediately after another character to express in conjunction with that character a syllable ; but such a mode of expression *never* occurs in Sanscrit. Whenever in this writing a complete vowel-letter follows another character, they always denote two different syllables ; and are not united in the expression of the same one, even when that preceding character is destitute of any vowel-mark of its own. Thus बढई, *a carpenter*, is not pronounced BāDHI, but BāDHāI. I do not here take into consideration the great imperfection of this writing, as exemplified in its use of the middle character of the group before us to express sometimes the syllable dha, and at other times ra, without any rule being afforded to determine when it should be employed with the one power and when with the other ; I merely advert to the vowel sounds of this word in illustration of the peculiarity just mentioned.

In the second place, the syllabary under consideration could not have been derived from the Greek or Roman systems ; for from them the Pandit would have learned to write in the European manner the syllables of his language ending with a vowel, as well as those beginning with one ; the very reverse of

which has been above shown to be his practice. If it be asked why might not the Sanscrit as well as the Ethiopic syllabary be derived from the Greek method of writing, I have to reply, that in the Ethiopic tongue there are no syllabic sounds commencing with a vowel; it cannot, therefore, be ascertained that the Abyssinian would have expressed such sounds otherwise than he does those which are actually employed by him, and the natural presumption is, that he would have denoted them just in a similar manner; whereas the Hindoo has in his learned language syllables of both kinds, and writes those syllables in wholly different ways.

In the third place, the European and older Asiatic alphabets having been rejected as the immediate sources of the Sanscrit syllabary, it remains to be inquired whether this syllabary may not be the offspring of the Ethiopic system. Here the marks of near relationship are certainly very strong. Some of them perhaps may strike the reader's judgment less forcibly than others; but how he can resist their united evidence, I confess I do not see. I shall now submit to him, in a connected series, the different points of resemblance between the two systems which their comparison has suggested.

1°. Although, in modern practice, two of the Ethiopic characters are represented as letters each of which is, by its several modifications, expressive of the whole series of vowels; yet it has been shown that, in the ancient use of this system, it was a pure syllabary, containing no letters but such as were of syllabic powers; and it has been equally shown that the Sanscrit system also was at first a syllabary of exactly the same general nature.—2°. In the Ethiopic syllabary all the syllables expressed by the several letters begin with an articulation, and end with a vowel-sound; in the Sanscrit syllabary likewise all the syllables it expresses by single letters, begin with an articulation, and end with a vowel-sound, or with what is considered as such by the Pandits; although it is to be observed, that there are several simple syllables of their language which do not come under this description, and which, therefore, cannot be represented by means of their syllabary.—3°. In the Ethiopic syllabary certain changes in the shape of each letter denote certain changes in the termination of its syllabic power, and like modifications of shape in different letters indicate like terminations of their different powers. Now this description equally applies to the process which takes place in the Sanscrit syllabary; the modifying marks,

indeed, are different, but the principle which directs their signification is precisely the same.—4°. In the Ethiopic syllabary each of the letters, taken in its simplest form without any modification of shape, denotes a syllable ending in a short *a*; and in like manner each letter of the Sanscrit syllabary denotes, in its unmodified state, a syllable ending in a short *a*.—But to compare more closely the corresponding series of powers in the two systems, we should conceive those of the Sanscrit syllabary to be arranged in the same manner as the Ethiopic ones are in the table which has been given of the latter; that is, each set of the Sanscrit powers of a common commencement to be placed in the same horizontal line, and each set of those of a common termination to be in the same column; and still farther, we should reject the six columns introduced by the Pandit through gross ignorance of the nature of a vowel, as well as the two columns he has added to his system on account of vowel sounds occurring in his, but not in the Ethiopic language. Then it may be observed—5°. The syllables of the first column in both systems end in *a*.—6°. The syllables of the last column in both systems end in *o*.—7°. To conclude this comparison, let us bring together the powers belonging to any two of the equivalent letters of the two systems. For instance, the powers of the letter *Bet* are placed by the Ethiopian in the following order :

*bă bu bi bā bē bē bo*

and the powers of the same letter (when we reject those which do not really begin with a single consonant and end with a vowel, as also those which end with vowels not used in the Ethiopic tongue) are arranged by the Pandit thus :

*bă bā bī bī bū bū be bo*

There are three vowels exhibited in a twofold state in the latter series, and only two in the former; but when the distinction was introduced in any one instance it was easy to extend it to others.\* It is also to be noted, that although the

\* The correctness of this observation is practically illustrated by a recent publication of Captain Henry Harkness, in which he has given copies of several syllabaries that are used in the southern part of the Indian Peninsula, and are derived from the Deva-Nagari system. In four of these, namely, in the *Telugu*, the *Karnataka*, the *Malayalma* (which is the same as the *Tuluva*), and the *Tamizh* syllabaries, the vowels E and O, as well as A, I, and U, are considered, each of them, in a twofold state; and the consequence is that, in the first three of the derivative systems just mentioned, there are no less than eighteen columns, or eighteen varieties of the syllables denoted by the

powers including *i* and *u* are next to each other in both series, yet they are not in the same order; and that the syllables exhibiting the two states of *a*, are separated from each other in the former series. In consequence of these differences a perfect identity of the two systems cannot be maintained; but still there is left between them a degree of resemblance that is highly remarkable; and when it is considered how very singular is the arrangement of the terms in the former series, and that the resemblance in question holds not only between it and the latter one, but also, as far as the vocalization is concerned, between all the series of the two systems, it will be found quite beyond the range of probability that the second system could have been formed without a knowledge of the first.

But the extraordinary similarity of the Ethiopic and Sanscrit syllabaries,—a similarity, indeed, that would be utterly inexplicable and nearly miraculous, if one of them was not derived from observation of the other—holds not only in the nature of the two systems as now unfolded, but also in their application, and that too even in cases where it was very difficult to contrive a way of preserving it. In the Ethiopic mode of writing, a syllable is always expressed by one or two characters, according as it ends with a vowel or consonantal power; and in the Sanscrit method likewise, a syllable is always denoted by one or two characters, according as the Pandits look upon its termination as a vowel or a curtailed syllabic power. In the former system, in which every syllable of the language connected with it begins with a simple articulation, this mode of expression is quite natural; but in the latter system, in the employment of which syllables are often to be written which commence with a combination of two, or of three consonantal powers, it is obviously a very forced one. Yet even in such cases the Hindoo writer adheres to the model placed before him by the Ethiopic practice; and with that view—for it is inconceivable that the mutilation could have origi-

several letters; but in the *Tamizh* system there are only twelve columns, the six which were introduced by the Brahmans through gross ignorance of the subject, being in this syllabary rejected. The *Grantha* syllabary is the only one of those given by Captain Harkness, in which the series of syllables denoted by each letter is precisely the same as in the Sanscrit system; they are, however, all the rest as well as the *Grantha* one, ascertained to be derived from this system; and yet in all of them, it deserves to be remarked, the letters are entirely different in shape from the Deva-Nagari characters. This circumstance verifies an assertion I have already made upon the subject; and the publication shows by special examples the justness of the remark, that, in tracing the origin of any alphabetic system, we should attend far more to the powers with which the letters are used, than to their shapes.

nated in any other motive,—whenever he has to write a simple syllable or the commencing part of a compound one with two or three characters, he always jumbles fragments of those characters together, so as to reduce them to a single letter. Upon the whole, when all the circumstances of minute correspondence in the systems themselves, and in the use made of them, are taken into account, I am in hopes that the connexion which I assign to them will be considered as established nearly to a certainty, and I feel warranted in asserting that we cannot rationally come to any other conclusion on the subject than the following one; namely, that as the Ethiopic syllabary is derived partly from a Greek, and partly from a Shemitic origin, so the syllabic part of the Sanscrit system is derived from that syllabary.

With respect to the vowel-letters of the Sanscrit alphabet, it is not impossible but that their formation may have been suggested to the Hindoo by the vowel-marks he had previously adopted in imitation of those employed in the Ethiopic syllabary; and their shapes must, I apprehend, be considered as exclusively his invention. But for the use he makes of them he is indebted, certainly not to his own reach of thought, but merely to his observation of some foreign example. When he places them before the characters of the first column of his syllabary in order to express syllables, the two sets of letters thus combined, become virtually in his practice, I admit, the elements of a superior alphabet; but they are not distinctly such in his apprehension of the subject. That he has only a confused and obscure idea of vowels is obvious from his including among them the sounds expressed by *ri, ri, li, li, ang, agh*; and that he has a still more imperfect conception of consonants is equally plain from the name he gives his characters of “curtailed” or “incomplete,” when used as such. The idea of a consonant in the mind of a person who understands its nature, is just as complete as that of a syllable; what a letter of this kind denotes, indeed, is not a sound, but merely a capability of modifying sound, on which account it is called a “power.” But the letter in respect to this power is complete; and it is only when it is referred to an actual syllabic sound, instead of to a mere potential element of such sound, that it can be looked upon as curtailed or incomplete. What, however, I principally rely on in proof of the Pandit’s indistinct apprehension of the nature of an alphabet of vowels and consonants, and of the consequent impossibility of his having made out himself that which he employs, is the circumstance of his

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continuing to use the syllabary after he had attained to the superior system; which he certainly would not do, if he had as much knowledge of the subject as must have been acquired in rising from the one system to the other by his own mental exertions. Indeed, even as the case stands, and admitting that he was ever so passive and inert in his mode of receiving from some external source of instruction the superior use of his letters, it is wonderful that the practical experience of the benefit of that use did not make him extend it through the whole of his writing; and his retaining the syllabary can, I conceive, be accounted for only on the supposition of his having been long habituated to it before he was taught the more perfect system. This supposition cannot, indeed, be verified by actual observation, since there is not, as far, I believe, as has been yet ascertained, any Sanscrit writing now extant in which there are not vowel letters; but still it rests upon inferential grounds of some strength, and the probability is, that the syllabary alone was made use of for a long time before this writing reached the very curious and extraordinary state in which it is now presented to our notice, with the elements continually blended together in it of two alphabets of wholly different kinds.\*

The Indian, however, had particularly strong inducements to introduce the use of the superior alphabet into his writing, and we may be certain that he did so, as soon as ever the improvement was suggested to him; because there are several syllables of his language that he could not express by means of his syllabary. This imperfection, indeed, may to a lesser extent be observed in the graphic practice of the Ethiopian; of which I have given an instance in his mode of writing the Greek word *Ἱερουσαλήμ*, the second vowel of which he was obliged to represent by the sound of the syllable *ya*; but as it affected only his

\* The Sanscrit scholar may perhaps be surprised at finding it stated, that there is any incongruity in the ingredients of this writing. For, from the facility with which he conceives consonantal powers, he insensibly acquires the habit of at once mentally resolving the syllabic letters he meets with, into consonants and vowel signs; whence he is brought to look upon the whole series of characters which occur in any Sanscrit text, as belonging to an alphabet of one kind, and as differing from the general nature of European writing only in the circumstance of being partly contracted. But the writing in question is in this Essay considered, not as the European, from his superior expertness in reading, is enabled to view it; but as it is in itself, and as it appears to the apprehension of a native reader, taught according to the native method of instruction.



expression of foreign names, it was not productive to him of any serious inconvenience. On the other hand, the case is very different with respect to the Indian, and the wonder excited by his writing is, not that he adopted a new method of using his letters, but that he did not extend that method throughout the entire of his practice. Had he done so, no possible means would have been left of now discovering the origin of his first alphabetic writing. As to the second kind, which he mingles with the first, he could not have learned it from observation of any Asiatic writing; for in none of the Shemitic class of languages is there afforded an example of syllables beginning with a vowel.\* The superior part of his system must, therefore, be traced to an European source; and as he had more intercourse with the Greeks than the Romans, he probably derived it from the writing of the former people.

It has been already mentioned on the authority of Rufinus,—who lived near the time of the event to which I allude, and had his information immediately from the very companion of the person who was principally engaged in bringing it about;—that the Abyssinians were not converted to Christianity, and did not receive the Greek Scriptures till the year of our era 335.† And it has also been proved that the vocalization of their syllabary originated in their acquaintance with Greek writing. From both circumstances combined it follows that, in all likelihood, this syllabary did not attain to the state in which it has been transmitted to us till after the middle of the fourth century; and, consequently, that the formation of the Sanscrit syllabary was not commenced till a still later epoch. If it be objected to the former part of my conclusion, that the Abyssinians may

\* Arabic and Persian syllables beginning with an *Halif* are now usually represented in Roman letters as commencing with the vowel A; but this oriental letter had originally an aspirate ingredient in its power, as may be known from its prototype the Hebrew *Haleph*. In like manner the Hebrew *Waw*, which, when used to express a conjunction, is generally read by the syllable *Wə*, is in some particular cases pronounced simply as the vowel U. But in such cases the old pronunciation of the conjunctive sign was *Wu*; and it was only from the difficulty of making the consonantal part of this syllable perceptible in rapid utterance, that in the course of time it came to be dropped.

† Their translation of the Bible shows to a certainty, that, when they made it, they were unacquainted with the original Hebrew text, which they could not have been if they then were of the Jewish religion. They must, therefore, have been converted to Christianity from Paganism, and consequently, on that occasion have received for the first time the Greek version of the Old as well as of the New Testament.

have learned Greek writing before the Septuagint version of the Bible came into their possession, I am quite ready to admit that they were previously in habits of communication with the Egyptians when under the dominion of Greeks, and subsequently of Romans, who, from their artful policy, still continued to make use of the same European writing as their predecessors in the Egyptian documents of state. But the Egyptians themselves, as I think any one who reads the first volume of my work with attention must clearly see, acquired no knowledge of the nature of alphabetic writing till they became Christians. Before that event took place, their writing, like that now employed by the Chinese in the expression of foreign names, was beneath the very lowest grade of syllabary ; for it failed in the essential requisite of being limited to a fixed determinate number of signs. Beyond this defective system they never advanced till they were induced more particularly to study the Greek written language, in consequence of its having become to them the medium of religious instruction ; and then at length they arrived at the construction of the Coptic alphabet. It is, therefore, utterly improbable that the Abyssinians, who had far less intercourse with Greeks, and who, besides, were a very indolent people, should have attained to such a familiarity with the Greek method of writing as enabled them to introduce from it a very important improvement into their own, until they were by a similar inducement led to pay some attention to the nature of that method.

A limit to the age of the Sanscrit alphabet having now been fixed, the next point to be investigated is, whether this limit harmonizes with history ; not, I mean, with the boasting accounts of the Brahmans, upon which no sort of dependance can be placed, but with those of writers uninfluenced upon the subject by any motives of national prejudice or partiality. That long before the time when, according to the above representation, the Indians may be supposed to have completed their alphabet, they had intercourse with the Greeks and even with the Romans, is matter of historic record of unquestionable authority ; and is besides, in reference to the latter people, corroborated by the recent discovery of Roman coins that must have been buried in India before the end of the second century.\*

\* In the second volume of *Asiatic Researches*, page 332, is inserted a letter,—of Alexander Davidson, Esq., dated Madras, July 12, 1787,—from which I give the following extract :—" As a peasant near Nelor, about 100 miles north-west of Madras, was ploughing on the side of a stony, craggy hill, his plough was obstructed by some brick-work. He dug, and discovered the remains of

Many instances of discoveries of the kind, it is probable, might be adduced; but it is unnecessary to search for further confirmation of a fact that is already sufficiently established. What the inquiry more calls for, is to ascertain whether, previously to the limit of time assigned to the first formation of the ruder part of this alphabet, any communication was carried on between the Indians and Abyssinians.

Now the first circumstance that would, I think, be apt to strike one here, is the remarkable similarity between the distribution of men into castes in India and that which formerly subsisted in Egypt, as described by Herodotus\* and Diodorus Siculus.† The Greek historians indeed were not agreed as to how many of those castes there were in the latter country, nor are the modern writers as to how many there are in the former; it is no wonder, therefore, that the accounts we have of the number of classes in the two systems of arrangement should be somewhat different, though even, as respects this point, there is the remarkable correspondence of the priests constituting the first caste, and the soldiers the second in both systems. But the extraordinary principle of compelling every man to follow the same profession and way of life that his father had done, and never allowing him under any circumstances to change his occupation, is common to the two institutions. Herodotus records the enforcement of this regulation with respect to the class of soldiers,‡ and he implies it as to the rest by calling them distinct *races* of men; but Diodorus Siculus extends it

a small *Hindu* temple, under which a little pot was found with Roman coins and medals of the second century. . . . . This happened while I was governor [of Madras], and I had the choice of two out of the whole. I chose an Adrian and a Faustina. Some of the Trajans were in good preservation. Many of the coins could not have been in circulation; they were all of the purest gold, and many of them as fresh and beautiful as if they had come from the mint but yesterday."

\* "Ἔστι δὲ Αἰγυπτίων ἑπτὰ γένη. καὶ τούτων, οἱ μὲν, ἱερεῖς, οἱ δὲ, μάχιμοι κεκλήσονται· οἱ δὲ, βουκόλοι· οἱ δὲ, συβῶται· οἱ δὲ, κάπηλοι· οἱ δὲ, ἐρμηνέες· οἱ δὲ, κυβερνήται. γένηα μὲν Αἰγυπτίων τοσαῦτά ἐστι. οὐνόματα δὲ σφί κέεται ἀπὸ τῶν τεχνέων.—*Herod.* lib. ii, cap. 164.

† Instead of the last five classes of Herodotus's division, Diodorus substitutes three, as follows: "Ἔστι δὲ ἕτερα συντάγματα τῆς πολιτείας τρία, τό, τε τῶν νομέων, καὶ τὸ τῶν γεωργῶν, ἔτι δὲ τὸ τῶν τεχνιτῶν.—*Diodori*, lib. i, p. 67.

‡ "Οὐδὲ τούτοις ἐξέστι τέχνην ἐπασκῆσαι οὐδεμίην, ἀλλὰ τὰ ἐς πόλεμον ἐπασκέουσι μούνα, παῖς παρὰ πατρός ἐκδεκόμενος.—*Herod.* lib. ii, cap. 166.

expressly to every class of persons in the body politic of Egypt.\* It is not at all likely to have occurred to different nations independently of each other to impose upon human conduct so unnatural a restraint. And from this consideration alone, without entering upon minor points of resemblance which have been observed in architecture and in some other respects, it is, I conceive, fairly deducible that a connexion must have subsisted of very ancient date between India and Egypt; and if so, *a fortiori*, between India and Abyssinia,—a country that lies in the direct line of communication between the other two, according to the coasting mode of making voyages which was practised in ancient times.

But to trace this connexion nearer to the epoch under consideration;—we find Strabo in the first century stating, “that in his time the trade of the East with Europe was conducted chiefly through Alexandria; that the merchandize from Arabia and India was landed at Myos-hormos (literally Mouseport, a harbour on the western coast of the Red Sea, not a great deal farther from Axum, the capital of Abyssinia, than from Alexandria); that thence the lading [of the vessels] was conveyed to Coptus in the Thebaid, by camels, or on a canal of the Nile; and thence to Alexandria.”† Here again, the intercourse between India and Abyssinia is, I admit, made out only by implication; but Montfaucon’s collection of Greek writers enables me to prove directly by the express evidence of Cosmas, surnamed Indicopleustes, that it subsisted not long after the time in question. Cosmas was an Egyptian monk of Alexandria, who had previously been a merchant, and had travelled in that capacity through both India and Abyssinia. In the latter part of his life, during the reign of the Emperor Justinian, or about the middle of the sixth century, he wrote his *Christian Topography*, which has been published in the second volume of the above-mentioned collection. His attempt, indeed, to prove from Scripture that the earth is a flat surface of the shape of an oblong parallelogram, of which the

\* After separately stating of each class, that it was subjected to this regulation, Diodorus sub-joins the following more general account of the matter:—Τὴν μὲν οὖν διαίρεισιν τῆς πολιτείας, καὶ τὴν τῆς ἰδίας τάξεως ἐπιμέλειαν διὰ προγόνων τοιαύτην ἔσχον οἱ τὸ παλαιὸν τὴν Ἀιγυπτὸν κατοικοῦντες.—*Diodori*, lib. i, p. 68.

† — νυνὶ δὲ το πλείον εἰς τὴν Ἀλεξάνδρειαν τῷ Νείλῳ κατάγεται· τὰ δ' ἐκ τῆς Ἀραβίας καὶ τῆς Ἰνδικῆς εἰς Μυδὸς ὄρμον· εἴθ' ὑπέρθεσις εἰς Κόπτον τῆς Θηβαΐδος· καμήλοις, ἢ διώρυγι τοῦ Νείλου· ἐκεῖθεν δ' εἰς Ἀλεξάνδρειαν.—*Strabonis*, lib. xvi, p. 781.

length from east to west is double that from north to south, is very absurd; but he shows an intimate acquaintance with the circumstances of the countries in which he resided as a merchant, and there is no reason to doubt his testimony as to facts that must have come under his own observation. In the second book of his treatise he gives the following account of the African trade with India. "There is a region producing frankincense in the extreme parts of Ethiopia, being inland, but having the ocean farther on, whence those inhabiting Barbary [he so calls the country between that previously spoken of and the ocean], as being near, entering into the inland places and trafficking, bring from them most of the spices, as well as frankincense, cassia, aromatic reed, and many other things; and the same persons again convey them by sea to Adule [the seaport of Axum], and to the Homerite district [one immediately bordering on Abyssinia], and to the inner India and Persia."\* Here we have it asserted in express terms that a traffic was carried on from the principal seaport-town of Abyssinia and from the country which adjoins it, to the inner India; that is, to the Asiatic India, which was so called to distinguish it from a part of Africa which formerly had the same general denomination. It is not to be supposed that the Barbary navigators went directly across the sea to India, but in the mode of voyaging that was then in use they must have gone first to Adule, then along the coasts of Arabia and Persia, and in the last instance along those of India.

I subjoin another passage from the third book of the Christian Topography of Cosmas, not only on account of the allusion it contains to his having himself made this very voyage, but also because it shows the extent to which Christianity,

\* "Ἔστι δὲ ἡ χώρα ἡ λιβανωτοφόρος εἰς τὰ ἄκρα τῆς Ἀιθιοπίας, μεσόγειος μὲν οὖσα, τὸν δὲ Ὠκεανὸν ἐπέκεινα ἔχουσα. ὁθεν καὶ οἱ τὴν Βαρβαρίαν οἰκοῦντες, ὡς ἐγγύθεν ὄντες, ἐνερχόμενοι ἐπὶ τὰ μεσόγεια καὶ πραγματευόμενοι κομίζουσιν ἐξ αὐτῶν τὰ πλείστα τῶν ἡδυσμάτων, Λιβανον, Κασίαν, Κάλαμον, καὶ ἕτερα πολλά· καὶ αὐτοὶ πάλιν διὰ θαλάσσης κομίζουσιν ἐν τῇ Ἀδούλῃ, καὶ ἐν τῇ Ὀμηρίτῃ, καὶ ἐν τῇ ἑσωτερῇ Ἰνδίᾳ, καὶ ἐν τῇ Περσίδι.—*Montfauc. Collec. nov. lib. ii, pp. 138-9.* There is an ambiguity in this passage, in consequence of *ἡδυσματα* bearing the meaning of "seasonings for the taste," or that of "perfumes." If the word have here the former, which is the more appropriate signification, the articles of trade which follow it must be considered as additional ones; but if it have the latter, then the frankincense, cassia, and reed are subjoined merely as specimens of the *ἡδυσματα*. However this may be, it is plain from the account of Cosmas, that in the sixth century India imported from Africa commodities, which she now exports of her own growth.

and consequently the Syriac writing, was spread through India in the sixth century. "In the Island Taprobana [that is, Ceylon. Our author elsewhere tells us that what was called Taprobana by the Greeks, was named Selediva by the Indians.\* But Selediva, in the language of the country, means the island, *Sele*, or, as the word is now pronounced by Europeans, *Ceylon*] adjoining to the inner India, where the Indian Sea is, there exists a church of Christians, including both clerics and lay-believers; whether it extends still farther I do not know. In like manner it exists in the region called Male [that is, in Malabar; for *Male barr* means, in the language of the country, the main land, or continent, *Male*], where the pepper is produced; and in that called Calliana [it is uncertain what district this may be; Montfaucon conjectures, it is that of which Calicut is the principal emporium] there is moreover a bishop elected from Persia. In like manner also, in the island called Dioscorides [which still retains the same name, only that it is corrupted into Socotora or Socotra], situated in the same Indian Sea, where the inhabitants, colonists planted by the Ptolemies, successors of Alexander the Macedonian, speak Greek, there are both clergy (elected from Persia, and sent into those parts), and also a multitude of Christians. Which island we sailed by, but I did not land on it; with certain persons, however, of those using the Greek language, I kept company as they were proceeding to Æthiopia."†

Thus, I apprehend, an intercourse between the Indians and Abyssinians about the time of the formation of the older part of the Sanscrit alphabetic system, and long before, has been sufficiently made out. The similarity, indeed,

\* — τῆς νήσου τῆς καλουμένης παρὰ μὲν Ἰνδοῖς, Σελεδίβα, παρὰ δὲ τοῖς Ἑλλήσι, Ταπροβάνη.—*Montfaucon. Collec. nov. lib. ii, p. 137.*

† Ἐν τῇ Ταπροβάνῃ νήσῳ ἐν τῇ ἐσωτέρᾳ Ἰνδίᾳ, ἔνθα τὸ Ἰνδικὸν πέλαγός ἐστι, καὶ ἐκκλησία χριστιανῶν ἐστὶν ἐκεῖ καὶ κληρικοὶ καὶ πιστοὶ, οὐκ οἶδα δὲ εἰ καὶ περαιτέρῳ ὁμοίως καὶ εἰς τὴν λεγομένην Μαλὲ, ἔνθα τὸ πέραρι γίνεται καὶ ἐν τῇ Καλλιάνᾳ δὲ τῇ καλουμένῃ, καὶ ἐπίσκοπός ἐστιν ἀπὸ Περσίδος χειροτονούμενος. Ὅμοίως καὶ ἐν τῇ νήσῳ τῇ καλουμένῃ Διοσκορίδους κατὰ τὸ αὐτὸ Ἰνδικὸν πέλαγος, ἔνθα καὶ οἱ παροικοῦντες Ἑλληνιστὶ λαλοῦσι, πάροιχοι τῶν Πτολιμαίων τῶν μετὰ Ἀλέξανδρον τὸν Μακεδόνα ὑπαρχόντων, καὶ κληρικοὶ εἰσιν ἐκ Περσίδος χειροτονούμενοι καὶ πεμπόμενοι ἐν τοῖς αὐτόθι, καὶ χριστιανῶν πλῆθος ἦν νήσον παρεπλεύσαμεν, οὐ κατήλθον δὲ ἐν αὐτῇ συνένυχον δὲ ἀνδράσι τῶν ἐκεῖ Ἑλληνιστὶ λαλοῦσιν, ἐλθοῦσιν ἐν τῇ Ἀιθιοπίᾳ.—*Montfaucon. Collec. nov. lib. ii, pp. 178-9.*

of the writing of the two people, in a great variety of points which could not have occurred to different parties independently of each other, proves the reality of that intercourse beyond a doubt, whether we could account for it or not; but the being able to trace it, and to show that the supposition of its existence is accordant with the evidence which history supplies, is satisfactory to the inquirer's mind. Should it be asked,—if the Indians had communication with alphabetic writers for such a length of time before, why did not they sooner construct their alphabet,—the delay is, I think, sufficiently accounted for by the examples of the Egyptians and Chinese; upon consideration, indeed, of those examples, the ground for surprise will, I conceive, be found, not that hieroglyphists were so slow in setting about framing a syllabary, but that they framed one at all. A reason, however, for the difference in this respect between their case and that of other people long habituated to hieroglyphs, will presently be adduced. If again it be asked, why, having the power of selecting from three alphabets, did they make choice of the worst as their first model, I answer, they did so *because* it was the worst; because it was of a ruder kind than the European ones, and consequently the powers with which its characters are employed, could be much more easily apprehended by persons who had been previously acquainted only with hieroglyphic writing. And I must add, that, if this model had been commensurate to the expression of their language, they probably would never have gone beyond it; but when the use for some time of the syllabary they had thence derived, rendered them practically more capable of employing a superior alphabet, then the impossibility of expressing all their syllables by means of the part of their system first acquired, forced them in some measure to attend to European practice, and by the imperfect insight they gained into its nature they rose to the second part. Although the Syriac writing, as well as the three kinds just specified, had reached them before the formation of the Sanscrit alphabet, yet I have left it out of consideration among the models to which they may have resorted; because, as it contains consonants, it would, in the first instance, have been as difficult for them to catch a glimpse of its use as of that of either of the European kinds; and, in the second case, as it employs vowel-letters only after consonants, mere observation of the practice followed in it, would not have enabled them to remedy the defect of their syllabary.

If now we turn from this writing to the language to the expression of which

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it was first applied, we shall find very strong additional reasons for curtailing its reputed age;—reasons which are still further strengthened by the consideration that, in yielding to them, we not only get rid of great difficulties—I might perhaps say absurdities—which embarrass the prevailing opinion upon the subject; but also arrive at a rational and consistent explanation of the cause of the original formation of both the verbal and the graphic system of the Brahmans. In the first place, the language in question is by no means of a primitive kind, nor is its grammatical mechanism at all that of an ancient tongue. I admit that in very rude and possibly very ancient languages, long in use before their ingredients were prevented from any further amalgamation by the adoption of alphabetic writing, various groups of words may, by gradual or fortuitous blendings, have been reduced to single terms; and the accumulation of such compounds has the effect of producing great intricacy as well as exuberance of expression. Thus, for instance, in the Basque dialect there are said to be seventeen degrees of comparison, which evidently must have arisen from different combinations of adverbs having, in the rapidity of oral communication, happened to run into each other, in such a manner as not to be separable into their original distinct forms when alphabetic writing came to be applied to them. But the complexedness of the Sanscrit language is not of this nature; a great share of it, at least, has been produced by the extension of technical distinctions to cases to which they do not in strictness apply; so that we find here exhibited a junction of skill and ignorance which is very compatible with the supposition of the Brahmans having imperfectly learned the grammatic art from foreigners, but not at all with that of their having arrived at it originally by means of their own ingenuity. Thus their use of the verb, *to be*, in all the tenses of an active, a passive, and a middle voice, cannot be accounted for by any accidental amalgamations of formative particles with the principal word; and seems as inconsistent with the simplicity of a primitive language as it is with true correctness of thought.\* To imagine that a tongue displaying peculiarities of this kind could be very ancient, is at variance with every fair deduction that can be drawn upon the subject from writings which are of acknowledged great antiquity.

\* This example will be more particularly considered when I come to show the artificial structure of the Sanscrit language.



I have already observed that the Hindoo grammarian, as having more intercourse with the Greeks, is more likely to be indebted to them than to the Romans for the completion of his alphabetic system ; and from the same quarter he must, I conceive, have learned the very difficult and complicated mechanism which is presented to our notice in the construction of the Sanscrit language. That, betraying as he does, in some respects, considerable ignorance of the general principles of grammar,\* he could not himself have discovered the elements of this mechanism, is perfectly obvious ; and there is no external source from which he could have derived them except an European one. He could not have been taught them by the Arabians, who did not acquire their own knowledge of grammar till long after the formation of the system in question, namely, till after they had become acquainted with Greek literature ; and there is no other Asiatic nation from which, even up to the present day, the requisite information on the subject could be obtained. It is true that, as soon as a people adopt the use of an alphabet, their writings may be made the subject of grammatic analysis by those who are masters of the art ; rules may be traced out for ascertaining strictly the meaning with which every expression is used ; and a grammar of the language may be formed. But to suppose that the primitive writers whose compositions admit of being thus analyzed, had themselves any conception of the art by which this could be effected, is wholly unwarranted by

\* His choice of tenses, and his extending the use of the imperative mood to the first person singular, are, I submit, instances of such ignorance. The tenses of the Sanscrit language are thus given in Mr. Carey's Grammar : " The first tense is the present, the second the present dictative, the third the imperative, the fourth the imperfect, the fifth the perfect, the sixth the preter-indefinite, the seventh the future, the eighth the future benedictive, the ninth the future indefinite, and the tenth the conditional," p. 131. We have here a confusion of moods and tenses quite incompatible with the supposition of the Hindoo having arrived at his theory on the subject, which is in other respects very subtle, merely by his own efforts of thought. Mr. Carey gives the following examples of the use of the Sanscrit imperative in the first person, " Shall I read the Vedā or Tārkā ?—I want something to eat," p. 878. Surely when expression is given to the desire implied in each of these examples, the imperative immediately appears in the form belonging to the second person. " Tell me, shall I read the Vedā ?"—" Bring me something to eat." The same confusion of thought appears also in the Pandit's selection of moods ; which he has fixed to be " the indicative, the causal, the optative, and the frequentative."—*Carey's Gram.* p. 131. If these names be correctly applied, the second and fourth forms of expression are not moods at all. The optative is, indeed, strictly a mood ; but where is the use of a benedictive tense in a system in which this mood is employed ?

either experience or reason. The authors of the inspired works which make up the Hebrew Bible, had no knowledge of grammar;—their ignorance of it, indeed, is one of the strongest intrinsic marks of the great antiquity of that sacred book; and the case of Moses bears with particular strength upon the point, as he was the most highly educated man of his day, and skilled in all the learning of the Egyptians;—while on the other hand, the Chinese continue, even up to the present moment, wholly ignorant upon the subject. The latter example proves that letters are indispensably requisite to a knowledge of this art; the former, that they lead to such knowledge only after the lapse of a long series of years. I must defer to a subsequent occasion, as well the unfolding of these examples, so as to show that I have here given a just representation of their nature; as also the reasoning connected with the view of the matter which they supply,—a view which, though novel, will, I trust, be found correct, and agreeing with the real state of the case. For the present I shall confine myself to adducing a case, upon the facts of which there can be little room for difference of opinion; and when those facts are brought to bear upon the point before us, they will, I think, afford a convincing illustration of the great length of time that men would require after the introduction among them of the use of letters, in order to arrive at any degree of grammatic skill by means solely of their own efforts, unaided by external instruction.

The case to which I allude is that of the Greeks, the most ingenious nation, or at any rate one of the most ingenious, of those respecting which we have any historic information; and yet they had the benefit of alphabetic writing near 1100 years before they matured their notions of grammar into a regular art. For nearly such a length of time, it is computed by Sir Isaac Newton, they had letters before the Christian era, and according to the commonly received system of chronology this interval is much greater; but we do not hear of the grammarians as a distinct class of learned men till about the first century. The date, however, of an art's arrival at completion can be more closely determined by its immediate effects, than by the time of its professors first coming into notice; and the calculation made upon this principle will still more forcibly lead us to the same conclusion. One of the most direct as well as useful results of grammatic knowledge was the formation of dictionaries; let us, then, endeavour to trace these through their several stages of improvement, and we shall thus, I expect, be

brought clearly to perceive, how very slowly the art in which they originated, must itself have advanced. The inquiry, indeed, is even in reference to dictionaries alone, worthy of some attention; and it will besides serve to point out what very little right the Brahmans have to claim any share in the credit of having originally and independently made out this invention,—an invention which they could scarcely have even yet arrived at, if they had been left solely to the resources of their own ingenuity.

The most ancient works of which accounts have reached our days, having any relation to the nature of dictionaries, were commentaries of Greek grammarians on single authors, explaining the “words,” used by each author, which had in the course of time become obscure; whence they were called *γλῶσσαι*. Such, for instance, were the glosses of Homer, of Aristophanes, of Hippocrates, of Plato. Some of these, as for example, Homeric glosses, are still extant; but it belongs to the very nature of such works in the course of successive ages to receive continual accessions; first additional “words” are inserted in the margin, and, in the next transcription, introduced into the text; then again the margin is filled, and again the text is swelled; and so on. They cannot therefore, in the state in which they are now found, be depended on as preserving any resemblance to their original form. Next came into use glosses for whole classes of writers, as for instance, the poetic, the dramatic, the rhetoric, the philosophic, the medical glosses. These also were called *γλῶσσαι*; afterwards, by a more general denomination, *λέξεις*; and, when they came to be alphabetically arranged, *λέξεις κατὰ στοιχείον*. The third great step in the approach to a dictionary was made by Diogenianus, a grammarian, placed by Suidas in the second century, who is recorded by Hesychius to have brought together in alphabetic order all the words found in all the preceding collections, whether of the first or second kind, and thus to have formed a compilation from the *Homeric*, the *Comic*, the *Tragic*, the *Lyric*, the *Rhetoric*, the *Medical*, the *Historic* glosses. Suidas, indeed, states this work to have been an epitome of an older one, the joint production of Pamphilus and Zopyrion; but Hesychius, who lived, probably, in the fourth or fifth century,\* and certainly much nearer than Suidas to the age of Diogenianus, is more to be relied on.

\* Albert, in the preface to his edition of Hesychius—after showing that nothing certain is known as to the age in which this author lived, further than its being subsequent to the times of the several

The account given by Hesychius is preserved in his dedicatory Epistle to his friend Eulogius, the beginning of which more particularly bears upon this subject, and may be translated as follows: "Hesychius, a grammarian of Alexandria, to his companion Eulogius, greeting.—Many others also collected in the order of the letters the 'words' of the Ancients, O most beloved Eulogius: some, however, those only of Homer, as Apion, and Apollonius, son of Archibius; some, those separately of the Comic, or those of the Tragic authors, as Theon and Didymus, and other such compilers; and no one, all the words of the different writers together. But after these arose a certain Diogenianus, a man of industry and taste, who, having brought together the forementioned books and all the words dispersed through all, united into one compilation in alphabetic order all of them; I mean, the Homeric, and the Comic, and the Tragic terms, and those which occur in the Lyric poets and in the Orators; nor these only, but also such as are to be found in the works of the Physicians and of the Historians. In short, no word, as far as we are aware of, did he omit, whether of the Ancients, or of the writers of his own time."\* From the manner in which Hesychius here dis-

grammarians specified by him in his dedication to Eulogius;—concludes with the following observation: "Si quis tamen seculo quarto exeunte, vel paullo post, hoc Lexicon compositum putet, aliis sensim interpolatis; non videtur adeo absurdum sentire."—*Præf.* p. v.

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ΗΣΥΧΙΟΣ ΓΡΑΜΜΑΤΙΚΟΣ ΑΛΕΞΑΝΔΡΕΥΣ,  
ΕΥΛΟΓΙΩ, ΤΩ ΕΤΑΙΡΩ, ΧΑΙΡΕΙΝ.

Πολλοὶ μὲν καὶ ἄλλοι, τῶν παλαιῶν τὰς κατὰ στοιχεῖον συντεθείκασι λέξεις, ὧ πάντων ἐμοὶ προσφιλέστατε Εὐλόγιε· ἀλλ' οἱ μὲν, τὰς Ὀμηρικὰς μόνας, ὡς Ἀπίων, καὶ Ἀπολλώνιος ὁ τοῦ Ἀρχιβίου· οἱ δὲ, τὰς Κωμικὰς ἰδίαι, καὶ τὰς Τραγικὰς, ὡς Θέων, καὶ Δίδυμος, καὶ ἕτεροι τοιοῦτοι· ὁμοῦ δὲ πάσας τούτων, οὐδὲ εἰς. Διογενιανὸς δὲ τις μετὰ τούτους γεγωνὼς, ἀνὴρ σπουδαῖος καὶ φιλόκαλος, τά τε προειρημένα βιβλία, καὶ πάσας τὰς σποράδην παρὰ πᾶσι κειμένας λέξεις συναγαγὼν, ὁμοῦ πάσας καθ' ἕκαστον στοιχεῖον συντέθεικε· λέγω δὴ τὰς τε Ὀμηρικὰς, καὶ Κωμικὰς, καὶ Τραγικὰς, τὰς τε παρὰ τοῖς Λυρικοῖς, καὶ παρὰ τοῖς Ῥήτορσι κειμένας· οὐ μὴν ἀλλὰ καὶ τὰς παρὰ τοῖς Ἱατροῖς, τὰς τε παρὰ τοῖς Ἱστοριογράφοις· συλλήβδην δὲ ὁμοῦ οὐδεμίαν λέξιν, ὥστε ἡμᾶς εἰδέναι, παρέλιπε, οὔτε τῶν παλαιῶν, οὔτε τῶν ἐπ' ἐκείνου γεγεννημένων. According to the received mode of pointing the commencement of this extract, παλαιῶν is immediately connected with the preceding instead of the following words; by which means Hesychius is made to contradict himself. For if he said, "many others of the ancients also," that is, many others of the ancients as well as Diogenianus, he must have ranked this grammarian among the ancients; whereas he expressly distinguishes him from them at the close of the

guishes between the Ancients and Diogenianus, it appears that the third kind of compilation did not commence very long before the age in which he lived;\* and from his describing the first specimen of it as so complete, it is plain, his own collection could not have been much more comprehensive as to the subjects it embraced. The celebrated work, therefore, of Hesychius, as it came from the hands of this grammarian, must be considered to have been confined, if not to the more difficult and obscure words, at least to those peculiar to the different branches of literature; and not looked on as a general vocabulary of his language. Nor does the present state of the book afford any argument to the contrary; for the MS. copy from which it was printed,—the only one known to be extant,—was written about the year 1400, that is, probably near a thousand years after the time of the author; and how much a work of this kind must have been extended and enlarged in the numerous transcriptions of it which necessarily took place in so long an interval, may be easily conceived. Besides, even so late as the year 1514, when it was first printed, it received considerable additions from Musurus, a native of Crete, to whose care it was committed by Aldus to prepare it for the press; so that its completion must be referred to the sixteenth century, and we are not warranted in ranking it, as it was originally formed, under a more advanced class than that which I have distinguished as the third species of compilation. We have, therefore, still one step higher to ascend before we arrive at a dictionary.

That I might avoid any interruption to the course hitherto pursued in this inquiry, I omitted to mention the *Onomasticon* of Julius Pollux in the order of its date; because it is not in strictness of the nature of a dictionary, being composed of books, written in the form of separate treatises, which are digested according to subjects, not according to alphabetical arrangement; the words which relate to each subject being brought together, and their differences

extract. I should not have thought this correction worth noticing except to show, that Hesychius does not here supply any ground for supposing that the third stage of the invention in question was ancient in his time.

\* This agrees with the account of Suidas, who states that Diogenianus flourished in the reign of the Emperor Adrian; and shows that if another person of the same name was the author of the compilation in question (on which point Suidas expresses some doubt), he still could not have been very distant in time from this one.

explained. The work, however, from the nature of its formation, has this advantage in reference to the investigation before us, that it did not admit of being enlarged in successive transcriptions in like manner as those previously considered; and, consequently, its original extent may be estimated by its present appearance. As far then as the Onomasticon can be considered as belonging to the class of dictionaries, it affords a safe standard of the progress actually made in the improvement of such books at the time when it was written; and viewed in this light it tends to confirm the representation I have just given of the subject. The work was composed towards the close of the second century; and its exact age is fixed by the circumstance of the first book being dedicated to Commodus before he mounted the Imperial throne. Suidas states that Pollux taught at Athens during the reign of this Emperor; and describes his Onomasticon as a collection of synonymes, written in ten books.\*

To return now to the class of works whose contents are alphabetically arranged, and bring our inquiry respecting them to its close;—the oldest collection of the kind upon which any dependance can be placed, that, as transmitted to us, it does not greatly differ from the actual production of the author whose name it bears, is that made by Photius, Patriarch of Constantinople in the latter part of the ninth century, and which was entitled by him *λεξέων συναγωγή*. A MS. copy of this in the Library of Trinity College, Cambridge, which is ascertained to have been written about the end of the twelfth century, was transcribed for the press by the late Dr. Porson; and an edition from it has been since printed at the expense of the College. The learned world is much indebted to Cambridge for this publication, which is a very interesting one, as we have thereby obtained a copy of what was probably the first work that had justly a claim to the rank of a dictionary, and at all events have through it arrived at a limit to the antiquity of such works. For, as Photius was by far the most able and learned man of his age, the compilation he formed must be supposed superior in point of plan and extent to any preceding one, not excepting the original work of Hesychius; yet even with the improvements which it may have received

\* Πολυδεύκης . . . . ἐπαίδευσε δὲ ἐν Ἀθήναις ἐπὶ Κομμόδου τοῦ βασιλέως, καὶ ἐτελεύτησε βιοὺς ἔτη ν' καὶ ἡ συντάξας βιβλία ταῦτα Ὀνομαστικὸν, ἐν βιβλίοις δέκα ἔστι δὲ συναγωγή τῶν διαφορῶς κατὰ τοῦ αὐτοῦ λεγομένων.—

in the 300 years between its date and that of the MS. in question, it is barely entitled to the denomination of a Lexicon ; and if it was at first much inferior to what we at present find it, then dictionaries properly so called cannot be said to have been produced till after the time of its distinguished compiler. The very names now given to works of the kind were unknown to the ancients. *Glossarium* first appears in the writings of Aulus Gellius ; but from the context of the passage where it occurs, it cannot be inferred to have been used by him to denote "a book of glosses," nor probably did it acquire that signification till some centuries after. *Lexicon* is, I believe, found for the first time in the *Etymologicon Magnum*, a compilation of which the author is unknown, but its age is ascertained not to reach farther back than the tenth century.\* *Dictionarium* and *Vocabularium* are terms of still later introduction.

Thus, among the Greeks, who certainly are entitled to the credit of this invention, a gradual progress of it may be traced from small beginnings through several successive stages to its present state of comparative perfection ; and before the like credit can be allowed to any other people, a like progress must be shown to have taken place among them. But nothing of the sort is established, or even alleged to have been established for the Hindoos ; their first works of this nature are said to have been vocabularies of nouns and vocabularies of verbs, which, when united, may have been as extensive as the Greek compilations in the third stage above described ; and at any rate show that a considerable advance must have been made in the knowledge of grammar previously to their formation. That the Brahmins may have had such works nearly as long a time as alphabetic writing, I am quite ready to admit ; but this circumstance would only prove that they were the offspring, not of native invention, but of foreign, and consequently, of European instruction. And thus we are conducted to a limit of their

\* A limit to the antiquity of the work is got by ascertaining the age of the latest authors therein mentioned. On this subject Fabricius states as follows : "Sylburgius non multo post Photii, patriarchæ, tempora vixisse auctorem Etymologici credidit, sed Chærobosco etiam junior est, quem constat post Simonem, metaphrastem, hoc est, non ante sæculum decimum scripsisse."—*Bibliotheca Græca a Fabricio*, volumen vi. p. 595.

Sylburgius, in the dedication of his edition of this compilation, acknowledges that he could not find out who the author of it was, in these words : "Auctor qui fuerit nondum cognosci a me potuit."

age in accordance with that already assigned to the Sanscrit alphabet; for Europeans themselves cannot be said to have arrived at even the rudest notion of a dictionary till that of Hesychius was written; that is, till about the fifth century. In connexion with this subject it may also be here observed, that, if the Hindoo grammars were near as old as is pretended, they must have been composed immediately after the introduction of the Sanscrit writing (they could not sooner); and this consideration alone, independently of the internal evidence they afford to the same effect, would be sufficient to establish their European origin.

In the second place, the actual ingredients, as well as the grammatical subtilty of the Sanscrit language, make very decisively against its imagined antiquity. That German, Greek, and Latin enter into the composition of this language, and contribute, not merely to its materials, but even, if I may so express myself, to the very frame-work of its construction, is now so generally admitted, that there is no occasion for my detaining the reader with any illustration of the point,\* and I shall, therefore, proceed at once to show how incompatible with this acknowledged property of it are the received notions as to its prodigious age. In order to bear out such age, it is necessary to imagine the Indian tongue to be in a certain degree the parent stock of the European ones just mentioned; and, consequently, to suppose that, at some very remote period, a large body of the Indians advanced to the cold and barren plains of the Scythians,† and thence cut

\* I here refer with pleasure to a brief, but very able and interesting treatise on the above subject, by Dr. Prichard of Bristol, which forms a supplement to his *Researches into the Physical History of Mankind*. The author, by introducing the Celtic dialects into the field of this investigation (in which part of his plan he has been lately followed by M. Adolphe Pictet, in a work which has received the approbation of the French Academy of Inscriptions and Belles-Lettres) has thrown great additional light upon the matter, and has clearly established the connexion between nearly all the more ancient North-European languages and the Sanscrit; I differ from him only as to the cause of that connexion.

† To place this theory in the point of view that is least objectionable, I have described the Indians as proceeding first to the north and then to the west; in order to avoid the supposition of their crossing the sea in times when it is utterly improbable that there was shipping, upon a great scale, in any part of the world. Yet a very distinguished supporter of the theory in question does not shrink from adding even this to the other improbabilities of the case. Baron Cuvier, in reference to the Greek portion of the Sanscrit language, writes thus: "The Pelasgi were originally from India, of which the Sanscrit roots that occur abundantly in their language do not permit us to doubt. It is probable that by crossing the mountains of Persia they penetrated as far as the Caucasus; and that



their way into the forests of Germany;—without any conceivable motive for their adopting such a course, and without either the courage or the energy that must have been requisite for putting it into execution. Surely the bare statement of this hypothesis is sufficient to expose its monstrous improbability; the Ganges might almost as easily be conceived to have in days of old flowed backward to water the wilds of Siberia. Oh no! The larger currents of human emigration have never taken such a direction as that here fancied;\* it has always been, on the contrary, the hardy sons of the north who, in search of more genial climes and more fertile soils, have made incursions towards the south; and the admixture of German with the languages of Persia and India, can be accounted for only by the supposition of numerous hordes of Germans having formerly made good their settlement in those countries.

The correctness of this view of the subject history supports, not only by recording analogous cases of emigration, but still farther by supplying us,—there is some reason to think,—even with the very identical instance which occasioned

from this point, instead of continuing their route by land, they embarked on the Black Sea, and made a descent upon the coasts of Greece.”—*Baron Cuvier's Lectures on the Natural Sciences*. With respect to the *probability* here stated, there are two points which I beg to submit to the reader's consideration. Supposing a body of five or six hundred thousand Indians, with their wives and children, were now to force their way to the eastern shores of the Black Sea: 1°. is there in the entire of that sea, even at the present day, shipping sufficient to convey such a multitude on the voyage pointed out by the Baron? 2°. even granting the shipping there to be sufficient for the purpose in question, is it ever collected, the whole of it together, on the eastern shore, or if it were, would the Indians, in the imagined case, be able to prevent the dispersion and escape of by far its greater part?

\* The strangeness of the hypothesis under consideration reminds one of Seneca's fanciful prediction, that Indians should settle on the banks of the Arras or the Wolga; and Persians on the Elbe and the Rhine.

“Indus gelidum potat Araxem;  
Albim Persæ, Rhenumque bibunt.”

*Senecæ Medea*, Act. ii, vv. 373-4.

How very different in its bearing upon the same point is the prophecy of Noah! In this prophecy—the oldest but one in the Bible, and which history, as far back as it reaches, remarkably verifies,—it is foretold, not that Asiatic nations should settle in Europe, but on the contrary, that Europeans should establish their residence in Asia. “God shall enlarge Japheth, and he shall dwell in the tents of Shem.”—Gen. ix. 27.

the phenomenon under consideration. Before I come to this instance, I shall notice but one subordinate case. The Galatians, to whom St. Paul addressed one of his Epistles, were confessedly the descendants of Gauls who had forced a passage into Greece and thence into Asia; and, above six hundred years after, in the time of Hieronymus, their posterity, according to this divine, spoke nearly as good German as the inhabitants of the city of Treves;—a circumstance which he puts very prominently forward in the exordium to his commentary on the Epistle just alluded to.\* But a far more extensive irruption of Northerns into Asia, and earlier by about four hundred years, is upon record; the account given of which by Herodotus, in different parts of his celebrated work,† is so well known that I consider it unnecessary to quote what he has stated upon the subject, and shall confine myself to the following abstract of his narrative. The Cimmerians, who were a European people, flying from the Scythians, and, somehow or other, getting out of the way of their pursuers, took a westerly direction, and seized on the territories of the king of Lydia, which at that time extended over nearly the whole of Asia Minor. The Scythians, on the other hand, swept like a torrent over the countries that were more to the east, and pushed their conquests towards the south as far as the confines of Egypt, from entering which kingdom they were prevented only by large presents from Psammetichus. After they had kept possession for twenty-eight years of what the historian calls Asia, they were, by far the greatest number of them, destroyed in Media by means of a treacherous stratagem, in the time of Cyaxares, great grandfather of Cyrus; and the Cimmerians probably held Lydia about as long, since they were thence driven by a prince who was the cotemporary of Cyaxares. Of the Scythians who escaped from the general massacre of their tribe by the Medes, some fled to Lydia, where they were hospitably received, and others returned to their native country; but with respect to the Cimmerians, we are not told what became of them after their expulsion from Lydia. As, however, it is not stated that these latter barbarians were much reduced in force, there is no reason whatever for

\* Unum est quod inferimus et promissum in exordio reddimus, Galatas, excepto sermone Græco quo omnis Oriens loquitur, propriam linguam eandem penè habere quam Treviros.—*S. Hieronymi Operum*, tom. iv, p. 256.

† See, in this work, Book i, chapters 15, 16, 72, 74, 103, 104, 105, 106, and Book iv, chapters 1, 3, 4.

supposing that they bent their steps back towards the dreary north; while on the other hand, the traces of a North-European language found in India render it likely that they may have invaded and conquered part of that widely extended country. But whether it be to them or to some earlier horde of intruders that those traces are to be attributed, the lingual phenomenon in question renders it certain that, at some very remote period, a large colony of people speaking a dialect of close affinity to the German tongue, settled in Hindoostan; and the analogies of history show very clearly how the event may have occurred.

Two very grave objections which beset the opinion hitherto most generally received, having been removed by the mode now proposed of considering the subject, it remains to be inquired, in the third place, whether the rest of our way to a consistent account of the origin of the Sanskrit language can be cleared of difficulties. The cause of the infusion of German into this language has been just ascertained: but the admixture with it of Greek and Latin cannot be explained in the same manner, as no extensive settlement of either Greeks or Romans was ever established in India. Some other source must, therefore, be sought for the South-European part of the compound in question; and here the old connexion which has been already proved to have subsisted between the Egyptians and Indians, naturally presents itself. One of the most remarkable of the institutions of the former people was that of a sacred dialect, the principle of the formation of which (as, from the scanty remains of it preserved by Josephus, has, I trust, been made apparent in the part of my work already published) was the agreeing upon meanings for Egyptian words quite different from their common or ordinary acceptations; whereby the priests were enabled, as long as they kept their secret, to converse among themselves in a species of gibberish that was to the people at large an unknown tongue. Now why may not the Brahmans of early times have taken a lesson from their Egyptian instructors in this, as well as they certainly did in other respects? The introduction, indeed, into their sacred language of South-European ingredients was a mode of rendering it unintelligible to the vulgar, which was a great improvement on the model they had to follow; but the end of the formation of both dialects appears to have been just the same. And in like manner, as I conceive, it was the desire of having a species of writing which the Indian public could not read,—till they were specially taught its nature, and which most probably for ages they were not

taught;—that induced their priesthood to imitate a foreign plan in the construction of a graphic system wholly different from that to which, as hieroglyphists, they had been previously accustomed.

But in reference to the subject of investigation more immediately before us, we have to notice the great spread of Hindooism among the indolent and voluptuous inhabitants of Southern Asia,—a circumstance which can be easily accounted for. However Brahmanism, the form which this religion assumes within India, and Boodhism, that which it takes outside, may otherwise differ, they agree in a principle most conducive to their general diffusion. Their supreme deity is the god of Epicurus of old, and the notion of him was most probably derived from the Epicurean philosophy; his beatitude consists in “that he do nothing, understand nothing, desire nothing;”<sup>\*</sup> so that in the conception of his worshippers he is, with respect to the moral government of the world, an absolute non-entity. By believing in such a god it is evident, that the warnings of conscience are drowned, and all restraint upon the passions is removed. The consequence unfortunately is, that Hindooism, in one or other of its forms, at present includes among its votaries nearly half the entire number of the beings who compose the human race. But as far as ever this pernicious superstition has reached, it is through the medium of the Sanscrit language that its doctrines have been conveyed. It is, therefore, no way inconsistent with my view of this language having originated in the contrivance of but one particular caste, that it should become so widely diffused, as it eventually has been, among the nations of the earth; for the use to which it has been applied, suggests an adequate cause for the vast extent of the field over which it has spread.

But as the circumstance which has been just considered, does not bear against the assigned origin of the Sanscrit tongue, so there are others which, I apprehend, tell very strongly in its favor. Wherever this tongue is at present made use of, it is employed only as the language of religion and learning; and no country can be pointed out where it can be shown, even with the remotest degree of probability, that it ever was spoken by the nation at large. What, however, I principally rely on is, the internal evidence which the language itself supplies upon the point in question. Here a general consideration first presents itself, with which,

<sup>\*</sup> See Dr. Marshman's *Clavis Sinica*, page 165.

I apprehend, the inquiring mind must be struck ; namely, that, notwithstanding the number and complication of the rules of the Sanscrit grammar, there are, it is said, no deviations from them. Now this is a peculiarity which never took place in any national language ; even Latin, which is perhaps the most regular of all, occasionally presents to us, in the writings of the very best Roman authors, expressions which are not strictly reducible to any rule ; and the necessity for the occurrence of this irregularity in every dialect spoken by the whole population of a country is obvious. Illiterate persons are continually introducing incorrect phrases, which are at first avoided by the learned ; but as soon as ever one of those phrases is adopted by the great majority of the people, it then, in a manner, forces itself upon men of better education. Alphabetic writing, indeed, checks this evil, but it cannot completely stop it ; and the consequence is, that there never was a national language, without its idioms. It was the assertion of grammarians, that the Sanscrit tongue was free from all irregularities, which first turned my attention to the extreme unlikelihood of its having ever been used generally by an entire nation ; and more particular consideration of its grammar has confirmed me in this view of the subject.

In the first place then,—to proceed to particulars,—the letters of the Sanscrit alphabet are arranged according to the organs by which they are uttered. This is an arrangement that has been made by grammarians in the case of many alphabets, but it never has been adopted by the nations using them. The order in which the letters of each national system are placed, has been determined by imitation of some older one, or by accidental circumstances ; and when once fixed, people who have learned them in this order, will not submit to the trouble of changing it. The artificial arrangement, therefore, of the Sanscrit letters clearly distinguishes the system to which they belong from all that have commenced in national use ; and marks out that it was originally formed not for the bulk of a people, but for and by a particular class of persons who had already made a considerable progress in the technicalities of the grammatic art.

In the second place, there is a metaphysical refinement in the grammar of this tongue, which never could have originated in national practice. If the Sanscrit words be distinguished into sets of a common general meaning and a common original, most of those sets have, each of them, a धातु *DHĀTŭ* or root, which expresses a general idea abstracted from every modification of it that cor-

responds to any inflexion, and so is a significant term at the same time that it does not belong to any grammatic part of speech ;\*—a description which in some degree involves a contradiction ; for if an articulate sound be significant it is a word, but it cannot be a word without coming under the head of some part or other of speech. Now, I maintain it, this is a mere artificial contrivance, and not a natural production of the human understanding. In fact, mankind, considered at large, would never go to the trouble of framing words of which yet they were not to make any use in mutual intercourse. The Sanscrit grammarians call these *dhātūs* by a term which signifies *nature* ; but surely no appellation was ever more misplaced ; such monstrosities must have sprung, not from the plain, natural sense of unsophisticated minds, but from the fanciful conceit and perverted ingenuity of wrong-headed metaphysicians. In languages destitute of inflexions, like the Chinese, there are words which may in turn serve the office of every part of speech according to their position in sentences ; but this is a very different thing from their belonging to no part of speech. In those which are distinguished by inflexions, it is generally the simplest form of a word that is looked upon as the root ; and if the language be only partly inflected, this root may be common to more parts of speech than one. Thus in English the root of the words *lovest*, *loveth*, *loved*, *loving*, *lovely*, is *love*, which may be either a noun or a verb ; but this again is a very different case from its being neither the one nor the other, and yet signifying the abstract thought of love. If we take an example of a set of words of the same general meaning, in any of the more completely inflected languages, as for instance in Latin ; *amo* is usually considered as the simplest form of the verb expressive of love, and, consequently, as the root of all the other forms of it ; but this root agrees not with the notion of a *dhātū*, for not only does it belong to a particular part of speech, but also it includes a particular inflexion of that part. If on the other hand we confine ourselves to the syllable *am*, which is common to all the modifications of the word in question, we in one respect approach nearer to our Indian model, in that we have got an articulate sound that is not in Latin either a noun or a verb, or any other part of

\* In reference to the Sanscrit roots of verbs, Mr. Carey informs us, that “ The meaning affixed to the *dhātus* is designed to express merely the simple idea, they being in their crude state neither nouns nor verbs.”—*Carey's Gram.* p. 137.

speech ; but in that language it has no meaning, and, consequently, still fails to supply us with a *dhātū* ; as soon as ever we amplify it sufficiently to have a meaning, it is immediately restricted to some particular part of speech, and to some particular form of that part. In short, as far as I am aware of, there is no language, unconnected with the Sanscrit, in which there is to be found a set of words of the same kind as the Indian *dhātūs* ; and whoever impartially considers the matter, must, if I mistake not, perceive, that these creatures of the imagination, or, as it were, metaphysico-grammatic pegs for hanging words upon, never could have had their rise in the practice of any nation ; and that their production is attributable solely to some class of individuals who had far more leisure and and less common sense than fall to the share of the great body of mankind.

In the third place, the total transformations which the roots of words occasionally undergo in Sanscrit sentences, manifestly show design on the part of those who introduced them ;—design which is incompatible with the supposition of their having originated in a natural way. In all natural changes of language by which new dialects are produced, the newly adopted modifications of words have arisen from causes independent of human forethought, and are to be ascribed to the influence of external circumstances operating on the organs of speech, the sense of hearing, and the instinctive energies of man, rather than on his intellect or will. This, I apprehend, may be fairly inferred from the savage character of those by whom such changes are brought about, and from the consideration that a great alteration in the grammatical frame-work of a language has never been suddenly effected in a civilized state of society. Thus the transition from Latin to Italian is due to savages who took no interest in philological speculations, but were wholly intent upon fighting and plunder ; as soon as they became a little civilized, and capable of reflexion, an end was put to all further violent innovation in the structure of their speech.\* But however devoid of

\* The power which alphabetic writing exerts in preserving the grammatic structure of a language is strikingly illustrated by the above example. What space of time was occupied in completing the transition from Latin to Italian cannot now be exactly ascertained ; but it undoubtedly was very short in comparison with the previous duration of the older dialect, or the age which the subsequent one has since attained to. The savages who effected this transition could neither read nor write (and if the nation they conquered had sunk into equal ignorance, the difference between the ancient

attention or design men may be in the case of the natural production of new verbal modifications, yet in general those modifications are in the same dialect similarly made for similar alterations of the sense; partly from the instinctive predilection of the mind for uniformity, and partly perhaps from some indistinct reference to older forms. It is this analogy in their formation that, afterwards presenting itself to notice, gives room for the application to them of grammatic rules of classification, determining how each word is to be inflected for the several varieties of its primary signification, in polysyllabic tongues; or how its elementary sounds are to be changed in composition or in connexion with other words of a sentence, in the languages which admit of such permutations. In all those modifications of a word, when arising from a natural source, one common property is observable; namely, that the root is scarcely ever wholly changed; for it is impossible that the expression for the principal part of the meaning of a term should entirely disappear without arresting the attention of the person who introduced so striking a transformation. Hence the instances of total alterations of the kind in the construction of sentences are few and anomalous in, I believe, every known language except the Sanscrit; while in this latter tongue the *dhātū*

and the modern language of Italy would probably have been much greater than it now is); but as soon as the art in question again came into use among the upper classes of society, all great changes of Italian ceased; it has, indeed, since received gradually improvements, but its grammatic frame is, in the main, unaltered from what it was at the earliest period to which it can be traced. On the other hand, however barbarous in other respects were the Turkish invaders of Greece, they still had an alphabetic writing of their own distinct from that of the Greeks; which circumstance effectually prevented any blending of the languages of the two people. The consequence is, that Greek never underwent a total change in its inflexions; and it is not perhaps too much to say, that the modern language scarcely differs from the dialects which were spoken in Greece three thousand years ago, more than those dialects differed from each other. Compare now with those two examples the case of South-Eastern Asia and of America. In the former district,—where alphabetic writing is probably not of very ancient standing, and where its use has been considerably deteriorated by the predominance of hieroglyphic practice,—great numbers of languages have started up, many of them even since the formation of the Sanscrit, from which they obviously are in part derived. In the latter range of countries,—into which it is certain that the alphabetic art was not introduced till the time of the Spanish invasion, and which the state of their population affords reason to think, were not then very long peopled,—there have been found no less, it is said, than *fifteen hundred* different dialects spoken by the original inhabitants.—See *Pritchard's Supplement*, &c. p. 11.



not unfrequently disappearing,\* does so, exactly according to rules which, for every case, determine the substitutions that are to be made; and that in so precise and definite a manner, that the student can always recover the root;—a circumstance which, as I conceive, strongly marks out a considerable part of the Sanscrit structure as artificial, and draws a broad line of distinction between it and all natural languages.

In the fourth place, “to be” is expressed in Sanscrit by two different verbs, which in the first person singular are, अस्मि ASMī, from the *dhātū* अस् AS, and भवामि BHāVā Mī, from the *dhātū* भू BHū; but of these the latter is conjugated through all the moods and tenses of the active, passive, and middle voice;—a peculiarity of which, I believe, no instance is to be found in any natural language. In fact the verb substantive, though in many languages used as an auxiliary in the expression of passive forms of thought, does not, when employed as a principal, in strictness admit of the distinction of voices, and in consequence is generally confined to the inflexions of a single voice. There are, however, several exceptions to this restriction; in Hebrew, for example, the verb *היה*, HaYaH, is found in a few of the passive inflexions of the preterite and the participle *benoni*; in Greek, *εἰμί* is used in the imperfect and first future middle; and in Welsh, *bôn* occurs in the third person singular of the tenses of the passive voice.† Many other such instances might be adduced; and it is only accordant

\* Mr. Carey enumerates the following ways of forming derivatives from *dhātūs*: “1. by prefixing an inseparable preposition; 2. by inserting a syllable or syllables between the root and the other additions; 3. by a substitution of other letters for some or all the original letters of the *dhātū*; 4. by affixes; 5. by the terminations which make the inflexions of nouns and verbs.—*Carey's Gram.* pp. 11-12.

† See Dr. Pritchard's *Supplement*, &c. p. 174. I take this opportunity of noticing an observation of Dr. Pritchard's respecting the Welsh language, which in a philological point of view is very valuable. By a comparison of the personal inflexions of the verbs with the pronominal suffixes to other words, he has proved those inflexions to consist of fragments of pronouns, in like manner as in Hebrew; or, to give his conclusion on the subject in his own way of expressing it, he has clearly shown, “that the Welsh verbal terminations are in general merely abbreviated or modified pronouns, affixed to the verbal roots; and this conclusion does not rest merely upon a probable conjecture, on which the grammarians of other Indo-European languages have been obliged to found it, but on the more substantial fact, that the very terminations in question are actually to be identified with the

with what was to be expected from the nature of the case, that great irregularities should occur in a verb which, in all languages, must have been one of the first inflected, and in most of them probably was brought into use before their models for uniformity of inflexion had been established. But that the common sense of mankind is opposed to the employment of this verb in more voices than one, is proved by the circumstance, that, although they would not give up irregular inflexions of it to which they had been once habituated, they yet never completed those inflexions throughout the moods and tenses of a second voice. The very striking difference in this respect between the Sanscrit and all other languages,

pronouns, as they are used on other occasions in an abbreviated form."—*Pritchard's Supplement*, &c. p. 133. But the structure of the formative additions to the root of the verb is more clearly discernible in Hebrew than in Welsh combinations, in this respect, that, in the former language, the case of the pronoun of which part is employed, can be frequently distinguished; and then, in accordance with strict correctness of expression, it is found to enter the formative in the nominative case, while on the other hand, the modification of it appropriated to oblique cases, is that which is used as an affix. Thus *pakad-ta* (thou hast visited) has the termination of the pronoun of the second person singular masculine in the nominative case; but *pekod-ka* (thy visiting, or to visit thee) and *pekad-nu-ka* (we have visited thee) exhibit, each of them in its last syllable, the termination which belongs to this pronoun in oblique cases. Still, however, there is a far greater distinctness of the elements of inflexion in Welsh than in any of the other ancient European tongues; whence it would appear, that the progress of amalgamation which takes place after the formation of a new dialect, lasted a shorter time, and by the use of alphabetic writing—the only conceivable means of producing such an effect,—was sooner stopped in this tongue than in the rest; and, consequently, that it has been transmitted to us in an older state than any other of the North-European languages which have sprung up from the same stock. This inference from the structure of the Welsh dialect is, to some extent, supported by historic evidence; for the ancient Britons, from their close connexion with the Romans, early got the benefit of alphabetic writing, and were comparatively civilized at the period when their Saxon oppressors were in a state of the grossest barbarism. Hence it is probable that Welsh is older than any form of the German language now extant; though it falls short of the age of Latin by near a thousand years, and of that of Greek by a still greater interval. The claims, therefore, which the Germans set up for the antiquity of their language are wholly inadmissible; indeed one can hardly avoid smiling at the extravagance of those claims. Thus one of their writers, Jäkel, in a work published so lately as the year 1830, under the title "*Der germanische Ursprung der lateinischen Sprache*," has seriously endeavoured to prove that Latin was derived from German. He might just as rationally have attempted to prove that the Roman alphabet was derived from the German one; or rather, indeed, he should have commenced with this latter notable point, and have shown the German graphic system to be the older of the two; for nothing can now be known of the language of any people before the epoch of their first use of letters.

has strangely been laid hold of as a mark of its great antiquity; but leads, as I conceive, to quite another result, and chiefly serves to show its artificial origin.

It is unnecessary to go farther into particulars under this head; many others probably will occur to the Sanscrit scholar, bearing the same way; but a sufficient number, I apprehend, has already been adduced to establish, beyond all doubt, the fact that the language in question owes the original production of a great part of its structure, not to causes naturally operating on the human mind, but altogether to artificial contrivance. Now what conceivable motive, except that which I have suggested, could have influenced men to take the trouble of artificially framing this most troublesome and complicated in its frame-work of all languages? Upon the whole, then, there are three properties of the Sanscrit tongue to which I have endeavoured chiefly to direct attention; 1. the subtilty of its grammar; 2. the infusion into it of Greek and Latin as well as of German; 3. its artificial formation. But with those properties the view which I have submitted to the reader is not merely compatible upon general principles, but its congruity with them is sustained and borne out by the historic evidence of analogous cases; while on the other hand, the opinion which has hitherto prevailed on the subject is wholly irreconcilable with every one of the three.

The statement which I wish to place before the Royal Irish Academy respecting the nature, age, and origin of the Sanscrit, both writing and language, is now concluded, as far as it depends on the immediate investigation of the subject in question. But as considerations drawn from astronomical science lend a great accession of strength to my argument,—not only in showing that the authority of the Brahmans, which is entirely opposed to my representation, is entitled to no sort of attention, but also in other ways;—I think it right to avail myself briefly of the collateral support which I can thence derive; for which purpose I shall chiefly refer to two articles of J. Bentley, Esq., inserted in the sixth and eighth volumes of the *Asiatic Researches*. These articles are well worth reading on their own account, and afford a happy illustration of the force with which mathematical skill may be sometimes brought to bear upon subjects that are not purely of a scientific nature; but my description of them, confined as it must be within narrow limits, and destitute of the explanatory aid which examples of calculations actually worked supply, will, I fear, convey but a very

inadequate idea of the great clearness and ability with which they have been composed.

The main foundation of Mr. Bentley's discovery respecting the Hindoo astronomy, and which he has established in the most convincing manner, is, that every known system of it, excepting, indeed, those grounded upon methods obviously borrowed from modern European science, is constructed on the following principle. The framer of each system selected *ad libitum* as the epoch from which the celestial motions were to be calculated, some very remote point of time, with no other restriction than that, according to his notion of the length of a year, the sun must have been then exactly in the vernal equinox; and arbitrarily assumed that, at that very instant, the moon and planets, with the nodes and apsides of their orbits, were in conjunction with the sun (that is, that as seen from the earth they were then in the imaginary right line passing through the centres of the earth and sun). Such a coincidence most probably never occurred, and certainly did not occur, as Mr. Bentley has clearly shown, at the commencement of the *Cali yuga* of the system of *Veraha*, (in the year B. C. 3102), to which instant of time it is ascribed, as well as to the epoch from which the system is made to begin.\* In this, as well as in the other purely Hindoo systems, the number of revolutions performed by each celestial object during the *Calpa*, or grand cycle, is fixed; consequently the mean motion of each is determined; and the calculation of its mean heliocentric longitude at any assigned time is greatly simplified by the above described assumption. For as the whole length of the *Calpa* is to the part of it elapsed up to any assigned instant, so is the number of revolutions performed by any planet in the former space of time to the number performed by it in the latter space; from which, deducting the integers, the fractional remainder gives, according to the assumption in question, the sought longitude. It is, however, certain that every such system being founded on a

\* To express myself more accurately, an *actual* conjunction is assumed to have taken place only at the commencement of the great cycle (or *Calpa*) of this system; and a *mean* conjunction at the commencement of its *Cali yuga*. What the actual positions of the heavenly bodies at the remoter point of time were (supposing them to have been then in existence), it would be impossible now to ascertain; but their positions at the nearer epoch, calculated according to their mean motions, are easily determined, and come out altogether different from what they should be, to verify the Hindoo assumption respecting them.

false hypothesis, must exhibit the mean motions too great for the planets which had really passed the line of conjunction at the assumed epoch; and too little, for those which then had not as yet arrived at it. The remoter, indeed, that epoch is, the less will come out the error in the mean motion of each planet, as being a given quantity (and that, at all events, not more than a semicircle) distributed among a greater number of revolutions; which explains the cause of the Hindoo cycles being made so enormously great, and of their magnitude being increased in each succeeding system. By such means the errors in mean motion may be so much reduced, that the mean longitude of each of the heavenly bodies,—which can be determined by the system, at a certain period not very far from the time of its being constructed, just as accurately as by European tables,—shall come out nearly accurate for some length of time reckoned backward and forward from that period; the interval during which the system thus answers being greater, in the same proportion, as the errors in the mean motions it exhibits, are less. But after some years the accumulation of errors, be they ever so small, must at last become sensible; and the farther the time for which the mean longitudes are sought, recedes from the era of the construction of any set of Hindoo tables, the greater must be the errors of the several computations in which those tables are employed; a circumstance which has given occasion to successive formations of different systems, or rather to reconstructions of the one system, the main principle on which they all are founded being the same.

If a set of tables were framed ever so correctly upon the plan I have just sketched out, they still could give the mean place of each heavenly body with exactness only at one instant; but they would so give it for every planet, apsis, and node, at the same point of time, namely, at the time of their being constructed. As however the case is, no Indian tables are so correct; in all of them the moment of exactness is different for different celestial objects; but for each object this moment can be ascertained in any set by a simple proportion. For the error in the present mean longitude of a celestial object as given by a Hindoo system, is the accumulation of error in mean motion since the instant for which we are searching; but the quantity of the former error is got by calculating the present mean place of that object according to the Hindoo tables, and also according to correct European ones, and then taking the difference; and in like manner the quantity of the latter error is had by calculating in each set of tables

the motion of the same object in a hundred years, and taking the difference. As, then, the error of motion for a hundred years is to the present error of mean longitude, so let one hundred years be to a fourth proportional; and this will be the number of years that have elapsed since the point of time when the system gave with exactness the mean longitude of the celestial object under examination. Now it is evident that the aim of an Indian astronomer, in constructing new Hindoo tables, must have been to avoid the inaccuracy, ascertained by experience, of older ones, and to make his calculations as to the places of the heavenly bodies agree with actual observation as near as he possibly could. But in adjusting the mean motion ascribed to each planet so as to accomplish this end, he was in fact bringing the above-mentioned point of exactness (if I may so call it) near to his own time; and the more successful he was in his adjustment, the nearer those two points of time must have been to coincidence. We cannot, however, depend upon any single operation for determining the latter time by means of the former. It is far more likely, considering the imperfection of the Hindoo's means, that in every case there should be a failure of coincidence, the point of exactness for some of the planets, &c. preceding the era of the construction of his tables, and for others following it. The only secure way, therefore, of arriving at the era in question is to calculate several of those points, and the greater the number of the calculations, the nearer must their mean result come to the precise epoch which is the object of our search.

The method above described has been applied by Mr. Bentley to determining the ages of the two principal Hindoo systems of astronomy, that of *Varaha Mihira*, which is detailed in the *Surya Siddhanta*, and is asserted by the Brahmans to have been constructed above two millions of years ago; and that of *Brahma Gupta*, which is acknowledged on all hands not to be above thirteen hundred years old. Let us begin with the former system. In the year 1799, when Mr. Bentley made his calculations, the error in the mean longitude of the Moon's apogee, as deduced from the tables of the *Surya Siddhanta*, was  $4^{\circ} 15' 28.2''$ ; and the error of those tables as to the motion of the same apsis in the course of 100 years is  $42' 10.9''$ . As then  $42' 10.9''$  is to  $4^{\circ} 15' 28.2''$ , so let 100 be to a fourth proportional, which comes out 605. There had, consequently, in the year 1799, about 605 years passed, since the time when the tables of the *Surya Siddhanta* would have given the mean longitude of the Moon's

apogee correctly, which could not be distant by any great interval from the time when those tables were constructed. By similar calculations applied to the Moon's ascending node, the Sun's apogee, Venus, Mars, the Moon, Jupiter, Saturn, Mars's aphelion, he got for each calculation a number of years which could not be very different from the agê of the *Surya Siddhanta*; and the mean result of the ten operations gave that age, at the time of their being made, somewhat less than 731 years.

From the foregoing result, combined with other considerations, Mr. Bentley very justly drew the following conclusion. "Therefore, any Hindu work in which the name of Varaha or his system is mentioned, must evidently be modern; and this circumstance alone totally destroys the pretended antiquity of many of the *Puranas* and other books, which, through the artifices of the Brahmanical tribe, have been hitherto deemed the most ancient in existence."—*Asiatic Researches*, vol. vi, p. 574. To this it was objected by a cotemporary writer, that the Varaha who wrote the astronomical treatise was a different person from Varaha Mihira;—an objection which has no ground whatever to rest on except the assertion of the very persons whose veracity is called in question, and to which, besides, our author gave the following answer. "It was not necessary that the name of Varaha Mihira should occur in the *Puranas* to prove them modern; for, putting Varaha and his system altogether out of the question, yet still the names, not only of the princes in whose reigns he lived, but also of several others, down to the last Mohammedan conquest, with the years of each reign, are to be found in some of the *Puranas*; a most certain proof that these works are not the genuine monuments of primeval times."—*Asiat. Resear.* vol. viii, p. 201. To this reply of Mr. Bentley I must add, that he has, by his astronomical proof, completely identified the age of Varaha, the author of the system in question, with that of Varaha Mihira, which falls inside the limits within which Indian chronological dates can be securely depended on; or in other words, he has proved that the Varaha who wrote the *Surya Siddhanta* lived at a time when it is known to a certainty, from historic records, that a person of that name lived; so that here, in some degree, history lends her aid, in verification of the result to which science had by a different route conducted us.

But a far more decisive and convincing proof of the correctness of Mr. Bentley's method is supplied by the method itself; as may be perceived from his

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second application of it, to a brief account of which I now proceed. Brahma Gupta flourished about the year of our era 527; a date, respecting which there is no disagreement, and which is sufficiently verified by the position of the colures on the Hindoo sphere, as fixed by him. Now the English astronomer deduced the time in which the tables of Brahma Gupta were constructed from nine different operations; by calculating, in the manner already described, the several lengths of time elapsed since those tables would have given exactly the mean longitudes of the Moon, Mercury, Venus, Mars, Jupiter, Saturn, the Moon's apogee, her ascending node, the Sun's apogee; and by taking the ninth part of the sum of those lengths. The mean result was found to be 1269 $\frac{2}{3}$  years; and if these be deducted from 1799, the year when the calculations were made, the era of the construction of the tables comes out A. D. 535 $\frac{1}{3}$ , or eight years four months different from that era, as otherwise ascertained. But in a system framed somewhere about six hundred years after, it is probable that the mean motions of the heavenly bodies are given more accurately in accordance with the artificial basis of Hindoo astronomy than in that of Brahma Gupta; whence it may, as I conceive, be fairly inferred, that the age which has been made out for the Surya Siddhanta differs from the truth by less than eight years.

In confirmation of our author's account of the false assumption on which the Indian astronomy is founded, I give the following extract from Mr. Harte's translation of Laplace's *Système du Monde*. "The Indian tables indicate a knowledge of astronomy considerably advanced, but every thing shows that it is not of an extremely remote antiquity. And here, with regret, I differ in opinion from a learned and illustrious astronomer, whose fate is a terrible proof of the inconstancy of popular favour, who, after having honoured his career by labours useful both to science and humanity, perished a victim to the most sanguinary tyranny, opposing the calmness and dignity of virtue, to the revilings of an infatuated people, of whom he had been once the idol. The Indian tables have two principal epochs, which go back, one to the year 3102, the other to the year 1491, before our æra. These epochs are connected with the mean motions of the Sun, Moon, and planets, in such a manner that, setting out from the position which the Indian tables assign to all the stars at this second epoch, and reascending to the first by means of these tables, the general conjunction which they suppose at this primitive epoch, is found. Baillie, the celebrated astronomer



already alluded to, endeavours, in his Indian astronomy, to prove that the first of these epochs is founded on observation. Notwithstanding all the arguments are brought forward, with that perspicuity he so well knew how to bestow on subjects the most abstract, I am still of opinion, that *this period was invented for the purpose of giving a common origin to all the motions of the heavenly bodies in the zodiac*. Our last astronomical tables being rendered more perfect by the comparison of theory with a great number of observations, do not permit us to admit the conjunction supposed in the Indian tables;”—*Harte's Translation and Commentary*, &c. vol. ii, pp. 220-1.

From the above extract it appears that Laplace was aware of the artificial nature of the Hindoo systems of astronomy, as well as of the falsehood of the claims to antiquity which are set up for them by the Brahmans. But the beautifully ingenious application of the knowledge of that nature to the purpose of compelling each system to tell its own age, is, I believe, altogether and exclusively Mr. Bentley's invention. I subjoin another extract from the same translation of Laplace's work, which affords some additional proofs of the several sets of Indian tables having been constructed in comparatively modern times. “Many elements, such as the equations of the centre of Jupiter and Mars, are very different in the Indian tables from what they must have been at their first epoch. A consideration of all these tables, and particularly the impossibility of the conjunction at the epoch they suppose, prove, on the contrary, that they have been constructed, or at least rectified, in modern times. This also may be inferred from the mean motions which they assign to the Moon, with respect to its perigee, its nodes, and the Sun, which being more rapid than according to Ptolemy, indicate that they are posterior to this astronomer, for we know, by the theory of universal gravitation, that these three motions have accelerated for a great number of ages. Thus this result of a theory so important for lunar astronomy, throws great light on chronology.”—*Harte's Translation*, &c. vol. ii, p. 222.

Although I avail myself of the support afforded by the proofs alluded to in the above extract, both on account of the great—the deservedly great—scientific celebrity of their author, and also because they lead to a right result; yet I am bound to add, that the last of them, and that upon which he appears chiefly to rely as a useful test of chronology, is, in reference to that of India, altogether inconclusive. For the age of a set of Hindoo tables can in no way be deduced

from the motions they assign to the Moon, unless they exhibit those motions correctly for the time when they were constructed. But from M. Laplace's own showing it follows that they can none of them be, in the remotest degree, depended on as accurate to this effect; since he admits that the Moon was not in the position attributed to her in any Indian system at the epoch from which its computations are made to commence; and has proved that her mean motions, in each system represented as constant, are in reality varied in the course of time. That we may see more distinctly the combined effect of the two misrepresentations, let us first suppose for a moment the motions in question to be constant, as they are exhibited by the Indian astronomers. Then the framer of each system, as reckoning from a wrong beginning, must necessarily have assigned a wrong mean *motion* to the Moon, in order to bring out her mean *place* right at the end of the computed revolutions, that is, in his own time. If on the other hand, we suppose the Moon's position at the commencement of an Indian epoch to be rightly given, then the uniform mean motion attributed to her, could agree with her really varying mean motions only once during the immensely long course of the acceleration of those motions, and once during their retardation. Let now the real state of the case be considered, both sources of incorrect computation being taken into account; and it is possible that an Indian set-of tables may, by a compensation of errors, give a right return of the lunar motions twice in the period of the variation of those motions; but the chances are millions to one against either time of their doing so coinciding with the era of their construction. M. Laplace, therefore, was wholly unwarranted in arguing from the motions under consideration, as if they were rightly given just at that era.

An example or two will, perhaps, place this matter in a clearer point of view. M. Laplace states that the Indian tables assign mean motions to the Moon more rapid than according to Ptolemy, and thence infers that they are posterior to the age of that astronomer; but he might have added, that the motions in question are more rapid than according to Lalande, and, consequently, upon his own principle, the tables exhibiting them are more modern than those of Lalande,—a conclusion which is obviously false. Thus for instance, in the tables of Brahma Gupta, the mean motion of the Moon is exhibited more rapid than in those of Lalande by  $5' 38.9''$  in a century;\* and, therefore, according to our author,

\* See *Asiatic Researches*, vol. vi, p. 580.

Brahma Gupta is more modern than Lalande;—indeed so much more modern, that the time of his existence is not yet arrived, nor will it for near four thousand years to come;\* and it must have been only by some sort of prophetic anticipation that the Brahmans have had his tables for the last 1300 years. Again the same tables exhibit the mean motion of the Moon's apogee slower than in those of Lalande at the rate of  $8' 3.4''$  in a century; which difference also, by our author's reasoning, would remove the Indian astronomer into futurity, but only about half as far off from us as in the preceding instance. The tables of Varaha likewise exhibit the mean motion of the Moon greater than modern ones do, and, of course, he is not yet come into existence; but on the other hand, they must be above ten thousand years old, since the mean motion of the Moon's apogee is given slower in Lalande's tables than in them at the rate of  $42' 10.9''$  in a century. These are a few of the absurdities and contradictions into which the application of the lunar theory to Indian chronology would lead us. The mistake of M. Laplace arose, as I conceive, from his overlooking the bearing which the nature of the Indian astronomy had upon his argument;—a bearing, which is strictly deducible from the data that he himself has supplied.

To return to the two articles of the English astronomer;—upon stating that, previously to the age of Brahma Gupta, the Hindoos came no nearer to determining the true length of a lunation than within  $20' 49\frac{1}{2}''$  of time, he offers the following remark. “This makes an error of one day in less than six years,

\* M. Laplace states that the retardation in the mean motion of either apsis of the Moon's orbit, which has accrued since the time of Hipparchus, or in the course of about two thousand years, is at the rate of nearly fifteen minutes in a century. “— j'en avois conclu que le mouvement du périée lunaire se rallentit de siècle en siècle, et qu'il est maintenant plus petit d'environ quinze minutes par siècle, qu'au temps d'Hypparque. Ce resultat de la théorie a été confirmé par la discussion des observations anciennes et modernes.”—*Mécanique Celeste*, tom. iii, p. 274. But he has also proved that the rate of retardation of the apsis is three times the rate of acceleration of the Moon herself. The secular motion of the Moon, therefore, is greater now than it was two thousand years ago, by about five minutes of his notation, or somewhat above two minutes and a half of the common sexagesimal admeasurement; and of course it will take about four thousand years more before she acquires the further secular acceleration of  $5' 38.9''$ ;—that is, supposing the rate of acceleration to continue the same for the next four thousand years as for the last two thousand, which probably is not exactly the case, but I have no occasion here to look for more than a very loose approximation to the truth.

which shows that the Hindus, at that period, could not determine the times of conjunctions and oppositions of the Sun and Moon for six years together correct, much less eclipses.—Vol. viii, note in p. 235. And after telling us that Brahma Gupta made his Calpa, or grand cycle, commence on a Sunday, he observes : “ This is the first system, so far as we yet know, [for he had already proved the system of Varaha to be really a later one], in which the names of the days of the week and of the twelve signs [of the zodiac, each set of names exactly corresponding to the European ones] were introduced. These were probably received from the West, and the first point of Aries was fixed to that point in the Hindu sphere which corresponded with the instant of the vernal equinox, which, in the time of Brahma Gupta, was the beginning of *Aswini*. This position has therefore a direct reference to the actual time when the twelve signs were first introduced, that is to say, near 1300 years ago ; though hitherto but little, if at all, attended to by writers on the Hindu astronomy, &c.”—Vol. viii, note in p. 236. From combining the information supplied in these two places, it appears that the Indians were indebted to European instruction for their first approach to accuracy in determining the celestial motions, and that this improvement in their astronomy took place not long after they had completed their alphabetic system. Now I do not urge this circumstance in proof of alphabetic writing being essential to the discovery of the first elements of this science, because I admit, that the Hindoos had some rude knowledge of it for ages before ; but, as I conceive, my theory of their owing the completion of their alphabet to Europeans, derives some collateral support from its being ascertained that they got instruction in another subject from the same quarter and about the same time.

Mr. Bentley speaks with hesitation of the quarter from which the Hindoos learned the names of the days of the week and of the twelve divisions of the ecliptic ; but had he, with the acuteness he possessed, sufficiently considered the subject, he scarcely could have failed to penetrate it. Even Mr. Colebrook, though by no means disposed to countenance any great reduction of the antiquity of Indian science,\* yet admits the probability of the Hindoos having got the

\* Although Mr. Colebrook had read the admirable astronomical articles I have been referring to, previously to his writing the paper from which the ensuing quotation in the text is taken ; yet in

names in question from the Greeks. After describing the Indian division of the zodiac into twenty-seven portions corresponding nearly with the arches described by the Moon in the several days of her sidereal revolution, those days exceeding twenty-seven only by a few hours, he observes: "The Hindus have likewise adopted the division of the Ecliptic and Zodiac into twelve signs or constellations, agreeing in figure and designation with those of the Greeks; and differing merely in the place of the constellations, which are carried on the Indian sphere a few degrees farther west than on the Grecian.\* That the Hindus took the hint of

this paper he clings to the notion of the extravagant antiquity of a correct celestial sphere which he supposes to have been formerly in use among the Hindoos, and expresses himself inclined to believe that the pole star in that sphere was  $\alpha$  Draconis, "which had been at its greatest approximation to the pole, little more than four degrees from it, about 1236 years before CHRIST."—*As. Res.* vol. ix, p. 330. In the same paper he endeavours to throw a slur upon the value of the articles in question; as appears from the following passage,—the only one in it in which I can find that he has taken any notice of either of them,—"*Brahmagupta* wrote soon after that period [when the vernal equinox was near the first degree of *Mesha*]; and the *Surya Sidd'hanta* is probably a work of nearly the same age. Mr. Bentley considers it as more modern (*As. Res.* vol. vi.);"—*As. Res.* vol. ix, p. 329. Of course, then, Mr. Bentley was mistaken, and his discovery is of no use! Here, however, our author admits the *Surya Sidd'hanta* to be less than 1300 years old; and yet, a little farther on, he undertakes to prove another treatise of *Varaha*,—an astrological one, entitled the *Varahi Sanhita*,—to have been written as long ago as the time of Eudoxus. This treatise contains a chapter on the motions (unconnected with the precession of the equinoxes, and, therefore, quite imaginary) of seven stars in *Ursa Major*, called the *Rishis*; and from an astrological method given by a commentator for determining these imaginary motions, Mr. Colebrook draws his inference, by steps through which I will not attempt to follow him; but if the reader should lay any stress upon reasoning which rests upon such a foundation, he will find it in the place already mentioned, pp. 363-4. The whole is wound up with the following observation. "In corroboration of this inference respecting the age of *Varaha Mihira's* astrological treatise, it may be added, that he is cited by name in the *Pancha tantra*, the original of the fables of *Pilpay*, which were translated for *Nushirvan* more than 1200 years ago."—*Ib.* p. 364. The weakness of this indirect attack upon Bentley's method of determining the ages of the different systems of Indian astronomy, is quite on a par with the fallacy of the previous insinuation, and requires but little refutation. A deduction from imaginary motions obviously proves nothing; and the appearance of *Varaha's* name in the work just specified, only proves,—no matter what antiquity may be claimed for that work,—that it must have been written within the last eight hundred years.

\* Mr. Colebrook here alludes to an older Indian sphere than that now in use, which, from his account of the position of the colures in it, would appear to be of great antiquity. It is barely possible that the Hindoos may have had a rude instrument of the kind long before they arrived at any accurate information on the subject of astronomy; but, from the circumstance of Mr. Bentley's

this mode of dividing the Ecliptic from the Greeks, is not perhaps altogether improbable.”—*Asiatic Researches*, vol. ix, p. 347.

The septenary division of time is so widely diffused through the East, that it may possibly have descended to different Asiatic nations independently of each other, by some remains of a tradition handed down from patriarchal times; but the *names* of the seven days had beyond all doubt a more western, as well as a more recent origin. Dion Cassius expressly attributes their invention to the Egyptians, and describes the astrological principle on which they were framed; from which, as well as from his assertion, it appears that their rotation commenced with Saturday.\* But the Christians, in adopting them, changed the initial one from Saturday to Sunday, evidently because the latter coincided with their first day of the week. Dion further shows that he could not be mistaken as to the people with whom this invention originated, for he informs us that it was not an old one in his time, giving this as a reason for its having been unknown to the ancient Greeks;† and the same reason obviously accounts for its not having been

never having found one mentioned in any older treatise than that of Brahma Gupta, it is, I conceive, much more likely that the *ancient* sphere in question is only a modern fabrication of the Brahmans, after they had become aware of the precession of the equinoxes;—a fabrication contrived to give colour to the pretended antiquity of their astronomical skill.

\* The inventors of the names under consideration supposed that, 1. Saturn, 2. Jupiter, 3. Mars, 4. the Sun, 5. Venus, 6. Mercury, 7. the Moon, presided constantly over the world, each by turns an hour, in the order here stated; and they called each day after the celestial body which presided over its first hour. In this manner the first day got its name from Saturn; the second, from the Sun; the third, from the Moon; the fourth, from Mars; the fifth, from Mercury; the sixth, from Jupiter; and the seventh, from Venus. That this was the original order of the astrological names of the week is proved, not only by the evidence of Dion, but also by the very nature of the case itself. For the above primary series, upon which the order of the names in the secondary one depends, is arranged according to the relative distances from the earth, which are attributed in Ptolemy's system of astronomy to the bodies he supposed to revolve round our globe. But if the rotation in the primary series be made to commence from any other body but Saturn, the order of the terms in that series will come out such as has no intelligible relation to the planetary system or any known theory respecting it.

† Τὸ δὲ δὴ ἐς τοὺς ἑπτὰ, τοὺς πλανήτας ὀνομασμένους, τὰς ἡμέρας ἀνακεῖσθαι, κατέστη μὲν ὑπ' Ἀιγυπτίων, πάρεστι δὲ καὶ ἐπὶ πάντας ἀνθρώπους, οὐ πάλαι ποτὲ, ὡς λόγῳ εἶπεν, ἀρξάμενον. Οἱ γοῦν ἀρχαῖοι Ἕλληνες οὐδαμῇ αὐτὸ (ἴσα γε ἐμὲ εἰδέναι) ἠπίσταντο.—*Dionis. Cassii*, l. xxxvi, p. 37; Leunclaviæ, Ed.

introduced into India before the sixth century. Now it deserves to be noticed that the Brahmans, in applying these Pagan names to their astronomy, adopted the Christian, not the Pagan, arrangement of them; for in Brahma Gupta's system, which is the oldest in which they appear, the grand cycle is made to commence on a Sunday. If, then, it was from the Egyptians that they got those names, it must have been after this people were converted to Christianity; but from that period till the commencement of the Saracen conquests in the seventh century, not only was Alexandria, on account of its magnificent library, the principal seat of Grecian learning, but also the language of the Greeks was very generally spoken, and their literature studied in lower Egypt; as they had been for a still greater length of time up to the same epoch throughout the by far greater part of Western Asia. That the Hindoos did not learn the astrological denominations under consideration from the ancient Germans, as has by some been conjectured, is certain, not only from the comparative lateness of the period when those denominations were introduced into India, but also from the circumstance of the Sanscrit words used for the purpose agreeing in signification with the Greek and Roman, rather than with the German terms. For the Germans, in adopting this mode of distinguishing the days of the week, substituted for the names of the planets Mars, Mercury, Jupiter, Venus, and Saturn, those of their tutelary deities Tuisco, Woden, Thor, Freya, and Sater (in which substitution, by the way, they were followed by their English descendants); whereas in the Indian designations the planetary terms are retained, those designations being *Ruvi*, *Soma*, *Mangala*, *Budha*, *Vrihaspati*, *Sucra*, *Sani*, which are taken from the same celestial objects, and in the same order, as in the Greek or Roman series of denominations, as altered by the Christians. Still it has been urged, that the above Sanscrit words, after the first two, denote severally, not only the planets, but also the Gothic deities, in the order in which I have given them; as for instance, that not only the Hindoos have called the planet Mercury after their god Boodha; but also that Boodha and Woden are one and the same personage. This attempted identification, however, is wholly at variance with the characters and the names of the imaginary deities in question; for the former is represented as essentially indolent, as doing nothing, understanding nothing, desiring nothing; but the latter, as actively mischievous, the demon of battles, and slaughtering thousands at a blow. And besides, if they were the same god, they surely would

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have the same name; German terms for other meanings have been preserved in the Sanscrit, and of all words those by which a people distinguish their deities are least likely to be changed or forgotten.

The close correspondence between the Indian and Greek names for the signs of the Ecliptic, as well as constellations of the Zodiac, will be at once seen from the significations of the Sanscrit terms, as given by Sir William Jones in the following extract from one of his essays. "They divide a great circle, as we do, into three hundred and sixty degrees, called by them *ansas*, or portions; of which they, like us, allot thirty to each of the twelve signs in this order :

<i>Mesha</i> , the Ram.	<i>Tula</i> , the Balance.
<i>Vrishā</i> , the Bull.	<i>Vrishchika</i> , the Scorpion.
<i>Mit'huna</i> , the Pair.	<i>Dhanus</i> , the Bow.
<i>Carcata</i> , the Crab.	<i>Macara</i> , the Sea-monster.
<i>Sinha</i> , the Lion.	<i>Cumbha</i> , the Ewer.
<i>Canya</i> , the Virgin.	<i>Mina</i> , the Fish."

*Asiatic Researches*, vol. ii, p. 292.

It is absolutely impossible that so arbitrary and fanciful an application of words could have separately occurred to two different nations; and one of those in question, consequently, must have got them from the other. But the Indians had them no earlier than the sixth century; it is obvious, therefore, that they must have been the borrowing party, and that they derived this set of names, as well as that for the days of the week, from Greek instruction.

The same observation applies with nearly equal force to the employment by the Hindoos of the Metonic cycle. This cycle was formerly supposed to be exactly equal to 235 lunations; whence it was inferred, that new and full Moons occurred at precisely corresponding times of each successive series of 19 years; and, consequently, that if those times were noted for any one of the cycles in question, they would be ascertained for all that ensued. In reality the 235 lunations fall short of 19 Julian years by less than an hour and an half. This cycle, therefore, is (according to a statement of Mr. Bentley's, which has been already given) far more accurate than any employed by the Indians before the period in the sixth century when Brahma Gupta lived; whereas the Greeks made use of it for fixing beforehand the time of the celebration of their Olympic



games (depending on the day of full Moon next after every fourth summer solstice) above four hundred years before the Christian era. The Indian astronomers, I admit, may possibly have discovered this cycle by their own sagacity; but there is evidently a much greater likelihood, that they learned it from the same source as that from which they got the twelve divisions of the Ecliptic with their names, as also the names of the days of the week.

I shall refer to Mr. Bentley's essays only on one point more, the importance of which will be perceived from the following extracts. "Two of the most ancient Hindu systems now known, and which in early times were applied to the purposes of chronology, are contained in an astronomical work entitled the *Graha Munjari*. This work is extremely valuable, as it enables us to fix, with precision, the real periods of Hindu history, with their respective durations; and to show from thence the alterations that have since taken place by the introduction of new systems."—*Asiatic Resear.* vol. viii, p. 224. "Now if we transfer the names, &c. in the four ages of the first system of the *Graha Munjari*, to the *Satya*, *Treta*, *Dwapar*, and *Cali* yugas [that is, to the golden, silver, brazen, and iron ages] above mentioned [of Brahma Gupta's system], and those in the *Manwantaras*\* of the second system to the *Manwantaras* of the same name in this [third system]; then we shall have the periods of the Hindu history, according to modern notions, founded on the system of Brahma Gupta."—*Ibidem*, p. 237. "The *Cali* yuga, or iron age [of the first system], began in the year B. C. 1004."—*Ibidem*, p. 225.

Thus it appears that our author has not only convicted the Brahmans of the grossest falsehood in the claims to antiquity which they have set up for their records; but he has also pointed out the actual way in which those claims were gradually extended. The *Cali* yuga of Brahma Gupta is fixed two thousand and ninety-eight years earlier than that of the first system of the *Graha Munjari*; of course by transferring the dates of events from the one system to the other, and by giving them a corresponding position in reference to the *Cali* yugas of each, they are thrown farther back into antiquity in the later chronicle by more

\* "The *Calpa* [of each system] is divided into lesser periods of years, called *Manwantaras* and *Yugas*; the intention of which seems to be, to assist the memory in calculating the years expired of the system; at least they answer no other purpose at present."—*Asiatic Res.* vol. vi, not in p. 546.

than two thousand years. And unquestionably if we had access to still older systems of Indian astronomy, with their dependant chronicles or *Puranas*, we should, on comparing them with the representations on the subject that have been last imposed upon the public, find the quantity of the retrogression still greater. Mr. Bentley, indeed, seems to have thought that the earliest chronicle he speaks of, gives the dates correctly, because there is not much difference in this respect between it and the second; but as the Pandits have been to a certainty caught antedating in one of those systems of theirs that have reached us, the obvious inference from analogy is, that they practised the same kind of fraud in the others. Even in the first of them the adoption of enormous cycles is presented to our observation (and there surely is strong reason to suspect the chronology which is connected with such cycles); its Calpa, though of very diminutive size when compared with subsequent ones, yet contains 2,400,000 years. What, however, places beyond the reach of doubt the fallacious nature of the chronological part of this, as well as of the subsequent systems, is, that it refers names and events to times long antecedent to the use of alphabetic writing among the Hindoos; of which times, consequently, it is impossible that they could have any knowledge.

The next neighbours to this people, the Persians, afford a very striking instance of the actual impossibility (ever since man's age was curtailed to its present length) of any nation's preserving its history by means of oral tradition, or of such hieroglyphic writing as was employed by the ancients; and I shall conclude what I have to state for the present on the subject before me with bringing this point under the consideration of the reader. The earlier portion of the ancient history of Persia has been transmitted to us by Herodotus; and the most interesting and remarkable part of it,—that which is connected with the life of Cyrus,—has also been recorded by Xenophon. The latter, indeed, embellishes his narrative with speeches of probably his own invention; which, however, are most appropriate to the characters, as he had been told them, of the parties about whom he writes. But, with respect to facts, no doubt can be reasonably entertained but that he, as well as the former author, paid the strictest attention to truth, in relating them faithfully as they had been described to him; and both historians had opportunities of gaining the best information that was accessible in their respective days. Yet they differ most materially from each other in the

beginning and ending of their accounts of Cyrus; and that too, upon points on which it is impossible that writers, with their dispositions and advantages, could have differed, if Persia had in ancient times possessed records that were permanently legible. Herodotus makes this extraordinary personage the son of a man of low condition, who commenced his public life with rebellion and usurpation; Xenophon represents him as the son of a king, who succeeded to the thrones of Media and Persia by regular inheritance, after the most exemplary loyalty and obedience to his predecessors. According to the earlier historian he came to a disastrous end in a foreign land, and having engaged in a war of unjust aggression against the Scythians, lost his life in battle, overcome by savages, and overreached by a woman; according to the later one, he never once was defeated, but after a long and uninterrupted career of victory and conquest, spent the close of his reign in peace and tranquillity at home. These differences as to the commencement and termination of so public and important a life, are wholly incompatible with the supposition of accounts having been written while the events in question were recent, and of the records thus formed having continued legible up to the times of our two historians; but they are precisely the sort of changes which national vanity, in the absence of such documents, would prompt the Persians to make in the history of their favourite hero; and they appear to have arisen in the very way in which misrepresentations of the kind may be conceived most naturally to have been produced. Herodotus read his celebrated historic work at the Olympic games not more than seventy years after the time of Cyrus,\* yet he in it alludes to reports already propagated different from the

\* I have here placed the recital of Herodotus a little earlier than it is usually fixed. The time of this occurrence is not, I believe, directly specified by any ancient author; but it can be collected from the age of Thucydides, combined with an anecdote told of him by Suidas, that he was then only a boy, and wept with emotion at hearing what was read out by the father of history. *Θουκυδίδης . . . οὗτος ἤκουσεν, ἔτι παῖς τυγχάνων, Ἡροδότου ἐπὶ τῆς Ὀλυμπίας τὰς ἱστορίας αὐτοῦ διερχομένου, ᾧς συνεγράφατο καὶ κινηθεὶς ὑπὸ τινος ἐνθουσιασμοῦ, πλήρης δακρύων ἐγένετο.* Thucydides was, according to Aulus Gellius (*Noct. Att. l. xv, c. 23*), forty years old at the commencement of the Peloponnesian war; and that war broke out (see Beverege's *Chronol.* p. 147) in the second year of the LXXVII<sup>th</sup> Olympiad. He, therefore, was born in the second year of the LXXVII<sup>th</sup> Olympiad; and, consequently, was ten years old at the LXXX<sup>th</sup> celebration of the games, and fourteen at the LXXXI<sup>st</sup>. The following one cannot be taken into account, as he was then passed the age assigned to boyhood among the ancient Greeks. Of the two ages of Thucydides

narrative he gives of the birth and death of that sovereign; but they were then so notoriously false, that he did not think it worth while to specify them.\* In, however, about sixty years after, when Xenophon collected his materials while living on terms of intimacy with Persians of rank in the army of Cyrus the younger, all vestiges of the older accounts, it would appear, were lost in Persia; for he takes not the slightest notice of them, but confines himself to statements that were, in all probability, of more recent origin, and among those which had been rejected by the more ancient writers as utterly unworthy of credit.

which are compatible with the above anecdote, the former is better adapted to the part of it which describes his bursting into tears; and this would fix the recital in question to the year B. C. 460; that is, sixty-nine years after the death of Cyrus, and fifty-nine before the battle in which the younger prince of that name lost his life.

\* Herodotus intimates, in a manner that cannot be mistaken, the falsehood of the reports rejected by him; particularly of those respecting the birth and early part of the life of Cyrus; in allusion to which he says, "As then certain of the Persians relate, who do not wish to extol beyond measure the concerns of Cyrus, but to tell the actually true account, according to these statements I shall write." *Ὡς ὧν Περσέων μετεξέτεροι λέγουσι, οἱ μὴ βουλόμενοι σεμνοῦν τὰ περὶ Κῦρον, ἀλλὰ τὸν ἐόντα λέγειν λόγον, κατὰ ταῦτα γράψω*.—*Herodoti*, l. i, c. xciv. It is moreover to be remarked, that our author does not refer to written accounts in the hands of the Persians, either here, or in the place where he alludes to the different reports respecting the death of Cyrus; in each place he only mentions spoken ones; and here says he will *write* what was *told* him by others. The consequence is, that while he speaks with certainty and from his own knowledge of the manners and customs of the Persians (showing thereby that he had actually gone to Persia, and spent some time there for the purpose of getting the best information); he does not by any means express himself with the same confidence respecting the history of that nation. I would not, however, have it inferred from the remark just made, that the Persians had at this time no writing of any sort in use among them; but merely that they had not a great deal, and that they had none which Herodotus could read. It cannot be maintained that they had none whatever, as in the early part of this author's account of the life of Cyrus (Lib. i, c. cxliii), he mentions the circumstance of a letter having been sent to that prince, concealed within the body of a hare, from a nobleman of the court of Astyages. But from his having derived his information immediately from Persians, and having lived among them upon terms of intimacy, it is evident that he must have understood their language; and, therefore, supposing they had any historic records, he would in all probability have learned to read them, if they had been alphabetically written. I should not rely much on this proof of the Persian writing having been hieroglyphic at the time in question, if it stood alone; but it is, I submit, entitled to some consideration, inasmuch as it falls in with, and thereby serves to corroborate, the more decisive one which is given in the text, derived from discrepancies, between Herodotus and Xenophon, that cannot possibly be accounted for in a satisfactory manner on any other supposition with respect to the nature of that writing.

Where the two historians differ, the preference, as I conceive, is manifestly due to the representations of the older, as he lived nearer to the time of the events he records ; but as it has been attempted to enlist Scripture on the side of the younger, I must observe that the sacred volume decides nothing between them. It has been urged that Xenophon's character of Cyrus being the more favorable one, is that which is more entitled to credit ; because Isaiah calls this conqueror the anointed of the Lord (Is. xlv, 1), that is, his appointed one for a particular service. But in the third verse after, the Prophet states that Cyrus knew not the true God ; and consequently he did not act from any principle of obedience to the Almighty. Surely bad men, as well as good, are instruments in the hands of Providence, whose ends they may be promoting, when they are least influenced by any such intention, and are least conscious of their actions having such a tendency. The soldiers who were engaged under Cyrus in the service in question, namely, in the taking of Babylon, are in like manner called by the same Prophet, speaking in the name of the Lord, "my sanctified ones,"\*—*Isaiah* xiii, 3 ; and just in a similar point of view, and when destined for a similar employment (the chastisement of a rebellious people), Nebuchadnezzar is termed by another Prophet, "my servant,"—*Jer.* xxv, 9. Yet it evidently would be quite unwarrantable hence to infer, that the individuals composing the immense armies which on the above occasion besieged Babylon, were all saints, or that Nebuchadnezzar was a righteous man. Another argument brought forward in favor of the later historian, is founded on the prophecy of Isaiah, in which he formally and expressly denounces against Babylon its siege by the Medes and Persians, and obscurely alludes to its capture through stratagem, and its spoliation by those people;†—a prophecy which was in every particular fulfilled;

\* The original meaning of *שׁוּב*, the root of the Hebrew word here employed, is "to separate"; from which is derived its secondary meaning of "to sanctify." The primary signification of the term seems more appropriate to the use made of it by the Prophet in this place ; where he speaks of those who, in the counsels of the Almighty, were set apart as the agents destined to bring about a certain event.

† The prophecy above referred to, is contained in the following passage of the Bible. "A grievous vision is declared unto me ; the treacherous dealer dealeth treacherously, and the spoiler spoileth. Go up, O Elam ; besiege, O Media."—*Isaiah*, xxi, 2. The obscurity in which this passage has been hitherto involved, is, I submit, in a great measure removed by a just view of the character of Cyrus. It is from a misconception on this point that commentators have, in opposition

but surely it was equally so, whether we suppose, with Herodotus, that the nations from which the besiegers were principally drawn, had but one common sovereign, or with Xenophon, that they then were ruled by two in alliance with each other. The distinct character of the Medes and Persians is no more destroyed by the supposition of their being under the sway of a single monarch, than that of the besieging armies is, by their being under a single general, on which latter point both historians are agreed. Scripture, therefore, leaves the question entirely open, as to which writer is more to be relied on, when they differ; but certainly it gives strong support to both of their accounts of the taking of Babylon, by the remarkable accordance with circumstances predicted by the prophets which each account exhibits.

Indeed it was quite impossible that the main facts of so eventful a life as that of Cyrus,—except such as were less creditable to him, and which national vanity very soon interfered to distort,—could have been wholly altered or forgotten in the space of 130 years, even by a people who had no more durable mode of preserving the memory of them than oral tradition. Accordingly we find our two historians agreeing on many prominent points; they both make the father of this remarkable man, a Persian named Cambyzes; and his mother, the daughter of Astyages, King of the Medes; according to both, he conquers Cræsus, seizes his kingdom, and spares his life; according to both, he takes Babylon by the stratagem of making outlets for the river which ran through it, thereby suddenly drawing off the waters, and thus gaining an admission for his troops into the town by night through the dried channel. In these particulars, and perhaps in some more in which Herodotus and Xenophon agree, the truth of their respec-

to not only the Hebrew text, as it now stands, but also the Septuagint version, ventured to attach a passive sense to the verbs in the first part of the prophecy, in order to shift the application of it from Cyrus to the Babylonian king. Thus Bishop Lowth has construed the sentence in question. “The plunderer is plundered, and the destroyer is destroyed.” And William Lowth, though by a different but very forced translation, has virtually given the same meaning of the sentence. To justify such an alteration, the *Waw* in the words of the original, *וַיִּבָּרַךְ* and *וַיִּשְׁרַף*, should be transferred from the first to the second syllable of each; and I admit that before the Hebrew text was vocalized, these words might be read in either way. But where the early vocalizers, the Masorets, and the Greek translators, have all agreed in limiting the sense to that indicated by the present reading, the case should be very strong indeed, which would warrant our changing it in opposition to their combined authorities,

tive narratives cannot, I will venture to assert, be rationally doubted.\* With respect to the subsequent portion of the ancient history of Persia which Herodotus has given, it is *a fortiori* to be relied on, as coming so close to his own time; not that he is to be implicitly followed in every thing he tells, for no uninspired writer was ever wholly free from error, and he particularly, though an evident lover of truth, was very credulous; but the general correctness of his narrative in its leading features must, I conceive, be acquiesced in. After him the continuation of this history was, in consequence of the increased intercourse between Greeks and Persians, undertaken by so many writers, that a judicious comparison of their works has enabled the moderns in Europe to arrive very nearly at certainty in reference to the principal facts.

If now we turn to the accounts at present in the possession of the Persians respecting the ancient history of their country, we must be struck by their total silence as to every one of the circumstances relative to Cyrus which have been above enumerated; and by the blank they exhibit not only as to these, but also as to every other event of importance which occurred in Persia down to the time of its conquest by Alexander the Great. Their writers, indeed, give us long lists of Persian sovereigns, which, as a matter of course, they extend backwards to the highest date assigned to the deluge;—a practice of which all nations avail themselves who have from any source got even the most obscure idea of that catastrophe, but are wholly ignorant of their own ancient history. But if we examine the actions of those sovereigns, we shall find that they are engaged almost exclusively in wars with the Turanians or Tartars; that is, with the nations with which the Persians had chiefly intercourse for the last 1500 years; so that all their historians have been able to effect was, either to transfer lives

\* In comparing those two writers I have not taken into account Ctesias, the cotemporary of the latter; because very little of his history has been preserved, and that little cannot be at all depended on, as he wrote under the control of a despotic monarch accustomed to the most servile flattery. There is, however, one point in his narrative worth noticing. He makes the duration of the Assyrian empire, previous to the revolt of the Medes, to be 1300 years; while Herodotus rates it only at 520.—Lib. i., c. 95. This discrepancy has puzzled chronologers in no small degree, in consequence of their overlooking the want of alphabetic writing among the Persians in the time of the two historians; but it is just such as might be expected to arise, in the course of the sixty or seventy years that intervened between them, from the natural tendency of tradition to augment the antiquity of dates, wherever it has been unchecked by documents of permanent legibility.

which had existed within this period, beyond it, or to fabricate lives of the same kind, in order to fill up their account of times that were utterly unknown to them.

These writers distinguish the families that ruled over Persia, previously to the Arabian conquest, into four dynasties;—the *Pishdadians*, the *Kaianians*, the *Ashkanians*, and the *Sassanians*;—of which the second was terminated by the Macedonian conquest. I here subjoin the Kaianian race, as also the Median and Persian dynasties of the Greek historians to which it is supposed to correspond.

## PERSIAN LIST.

.....  
 .....  
 Kaikobad.  
 Kaikaus.  
 .....  
 Kaikhosrou.  
 Lohorasb.  
 Kishtash.  
 .....  
 Ardeshir or Bahaman.  
 .....  
 Queen Homai.  
 .....  
 Darab I.  
 .....  
 Darab II.  
 Eskander.

## GREEK LIST.

Dejoces.  
 Phraortes.  
 Cyaxares I.  
 Astyages.  
 Cyaxares II.  
 Cyrus.  
 Cambyses.  
 Darius.  
 Xerxes.  
 Artaxerxes.  
 Darius Nothus.  
 .....  
 Artaxerxes Memnon.  
 .....  
 Ochus.  
 Darius Codomannus.  
 Alexander.

The names in the two lists which are fancifully assumed to belong to the same individuals, are here placed respectively on the same lines; but in point of fact there is not the remotest resemblance in the histories of the persons, thus compared, until we come down to the very last name upon each list. And how very little congruity there is even here, will be seen from the following abstract of the concluding part of the Persian account of the Kaianian dynasty; which I take from the *Dissertation on the Languages, Literature, and Manners of Eastern*



*Nations*, prefixed by Richardson to his Persian, Arabic, and English dictionary, London, 1806.—“Bahaman, the sixth king of the Kaianian dynasty, had married his daughter Homai, whom he left pregnant at his death; disinheriting his son Sassan, in favor of this lady and her offspring. Homai was declared heiress of the empire, if not delivered of a son, and regent, in that event, till he was of age to reign. Averse even to the distant prospect of resigning sovereign power, the queen ordered the birth of her son to be concealed; and sent him privately to be exposed in a casket on the banks of the Gihon; the rising of the waters soon swept him away, and threw him on a dyer's bleaching ground. The rich stuffs and valuable jewels, which the poor man found in the casket, convinced him that he was a child of elevated birth; he educated him, however, as his own son, and wished him to follow his profession; but the prince, unwilling to believe himself the son of a dyer, urged his reputed father so strongly, that the good man discovered at length all he knew; and delivered to him the jewels which he had carefully preserved. Young Darab determined immediately on the profession of arms; and set out for the army, which was then marching against the Greeks. He arrived on the eve of a battle; in which he distinguished himself with such heroism, that his fame reached the queen. The prince was sent for; Homai was struck with his presence; she discovered him by the jewels and the old man's testimony, and resigned the diadem to him, after having reigned with great reputation about thirty years. This Darab is represented as an accomplished prince, and a successful warrior. Philip of Macedon, amongst others, according to Khondemir, drew upon him his resentment, by refusing to acknowledge his authority. He marched against him; and, forcing him to take refuge in a fortress, Philip sued for peace, which was granted, on condition of giving his daughter in marriage to the Persian king, and paying an annual tribute of a thousand *beizets*, or eggs of gold. The young queen did not please her royal consort; though pregnant, he returned her to her father's court, where she was afterwards delivered of the famous Alexander, whom Philip educated as his son; and left him his kingdom, with the secret of his birth. Darab having, in the mean time, espoused another lady, she brought him Darab the younger; who mounted the throne on the demise of his father. This prince is represented by the historians of the East in very different colours from the gentle and amiable Darius Codomannus. His cruelties and oppressions rendered him

detested in Persia; and the great lords exhorted Alexander to assert his right to the empire. Encouraged by those general discontents, he resolved upon the attempt; and, as a leading step, informed the ambassadors of Darab, when demanding the annual tribute of the golden eggs; 'that the bird who laid them, had flown to the other world.' This refusal, with the raillery which accompanied it, enraged the King of Persia. He marched immediately, to reduce the Macedonian to obedience. The monarchs met; a bloody battle ensued; and Darab was worsted. He retired to his tent, to take some repose before renewing the engagement; but was stabbed by two of his attendants, who fled immediately to the Grecian camp. Alexander, informed of the murder, hastened to Darab's pavilion; he found him in the agonies of death; he threw himself on his knees, wept, and protested his ignorance of the treason. The dying prince believed him; named him as his successor; gave him his daughter Roshana in marriage; requested him to revenge his assassination; to govern Persia by Persian nobles; and expired in his arms. Alexander, they add, chiefly by the counsels of Aristotle, whom they call his Vizir, punctually fulfilled these last injunctions of the dying king; the great men of Persia being appointed to the government of the provinces and dependent kingdoms; which they were permitted to hold on feudal principles of homage, subsidies, and military service, to their conqueror, as paramount sovereign of the empire.—Here is a detail which corresponds with the writers of Greece and Rome in nothing but the catastrophe; and yet, in the whole annals of Persia, there is not, perhaps, a single passage which boasts a more intimate agreement."—*Dissertation*, &c. pp. xviii, xix.

Mr. Richardson seems to have conceived that the ancient Grecian accounts are preferred to this one by Europeans, merely because the mind is prejudiced in favor of the statements with which it is first acquainted; but surely the inherent improbabilities and inconsistencies in the narrative before us are, even without any reference to older documents, sufficient to prove it a gross fabrication. We have here a father disinheriting his son in favor of a daughter, and the son, with the nation at large, submitting to this decree without resistance;—the daughter endeavouring secretly to destroy her only child, a son, to whose preservation alone she could look with confidence as the means of ensuring to her protection in old age;—that son passing his life in poverty and ignorance up to thirty years of age, and yet immediately after turning out a most accomplished

prince;—and so on. It is unnecessary to pursue this view of the subject farther; but if the passage be considered in all its bearings, it will be found by far more adapted for the *Arabian Nights' Entertainments*, than for a place in the pages of real history.

But to revert for a moment to the two lists;—the ground on which it is imagined that Kaikhosrou is the same person as Cyrus, is because the Persian authors represent him as a prince who was exposed in his infancy, brought up by people of low condition, and discovered, when arrived at manhood, to be of royal birth;—circumstances, by the way, which have no analogy to the history of Cyrus as given by Xenophon, but only to that transmitted to us by Herodotus; and which would equally serve to identify Darab with the ancient hero of Persia. In every other respect the two characters here compared are totally different from each other; and the pairs placed immediately above\* and below the one just considered, are composed of equally discordant parts. Let us, however, for an instant assume that the preceding names belonged to the same individual, in order to try if this will assist us in the identification of the principal pair; and then we shall find so far, indeed, a correspondence, that Kaikhosrou is the grandson of his immediate predecessor, but not by his mother's side; the Persian historians give him this relationship through his father, whom they describe as the eldest son of Kaikaus, and state that his mother was the daughter of a Tartar king. Yet Sir William Jones was so possessed with the notion of the identity of the characters under consideration, that, in his sixth discourse on the Persians, he declares,—“I shall then only doubt, that the *Khosrau* of *Firdausi*, was the Cyrus of the first Greek historian, and the hero of the oldest political and moral romance, when I doubt that *LOUIS Quatorze*, and *LEWIS the Fourteenth* were one and the same French king.”—*Asiatic Researches*, vol. ii, p. 45. Even in the particulars of the birth and early life of the two heroes, on which alone Sir William had to rely for the identity he insisted upon, there is a discrepance which is quite sufficient to prove them different persons; and I do not hesitate to assert, that the imaginary character which he wished to fasten on the Grecian portrait, belongs much more appropriately to

\* In this comparison Cyaxares II. is passed over, as not forming one of a pair, there being no sovereign to correspond to him in the Persian list; and besides, he is not found even in the Grecian list, as far as it is given by Herodotus.

the Persian representation. Both points will, I apprehend, appear very evident from the following abstract of the Persian account, which I quote from Dr. Hales's Chronology, although the Doctor does not himself seem to have been aware of the direct bearing of his own statement. "Mirkhond represents Kaikosru, or Cyrus, as the grandson of Kaikaus, by his eldest son, *Siavek*, who was assassinated shortly after his birth; and Khosru was then concealed by his mother, *Franghiz*, the daughter of the king of Turan. Kaikaus long sought his grandson, who, at length, was discovered at a hunt, by a Persian nobleman, and brought to the Persian court, received with great joy, and made commander-in-chief [is there no romancing here?] of the Persian forces. That some time after, a competition for the succession to the crown took place between Cyrus and his uncle, *Fraiborz*, or Cyaxares, the surviving son of Astyages. [In the two lists the name Cyaxares, on its first occurrence, where it forms one of a pair, is matched, not with Fraiborz, but with Kaikobad. Dr. Hales certainly had a very strange way of identifying characters, and it would be difficult to decide, in reference to the several persons whom he here confounds together in pairs, whether those of each pair were more unlike one another in names or in the whole course of their actions]. When Astyages, unwilling to decide between his son and grandson, told them both, that he would appoint his successor, whichever of the two should first, with equal forces, reduce a rebel town, investing it on both sides. The skill and valour of Cyrus prevailed, and to him the town surrendered. Whereupon, his grandfather declared him his heir; and soon after retired from the world to solitude, and left Cyrus in peaceable possession of the kingdom."—*Hales's Chron.* vol. iii, p. 94.

Upon the total difference which subsists not only between the lives of Kaikhorsrou and Cyrus, but also between every part of the Grecian and Persian representations of the ancient history of Persia, the opinion of Richardson is valuable, because he was most extensively conversant with Persian and Arabic literature. "From every research (he says, in the dissertation I have already referred to) which I have had an opportunity to make, there seems to be nearly as much resemblance between the annals of England and Japan, as between the European and Asiatic relations of the same empire. The names and numbers of their kings have no analogy; and in respect to the most splendid facts of the Greek historians, the Persians are entirely silent. We have no mention of the

*Great Cyrus*, nor of any king of Persia, who, in the events of his reign, can apparently be forced into a similitude. We have no *Cræsus*, king of Lydia; not a syllable of *Cambyses*, or his frantic expedition against the Ethiopians. *Smerdis Magus*, and the succession of *Darius*, the son of *Hystaspes*, by the neighing of his horse, are to the Persians circumstances equally unknown as the numerous assassinations recorded by the Greeks. Not a vestige is, at the same time, to be discovered of the famous battles of *Marathon*, *Thermopylæ*, *Salamis*, *Platæa*, or *Mycalæ*; nor of that prodigious force which *Xerxes* led out of the Persian empire to overwhelm the states of Greece. Minutely attentive as the Persian historians are to their numerous wars with the kings of Turan or Scythia; and recording, with the same impartiality, whatever might tarnish as well as aggrandize the reputation of their country, we can with little pretence to reason suppose, that they should have been silent on events of such magnitude, had any records remained of their existence, or the faintest tradition commemorated their consequences."—*Dissertation*, &c. p. xvi.

The reasoning of our author at the conclusion of this extract is, so far, quite correct; but where he, as I conceive, fell into error, was in the tacit assumption that the Persians actually had records of all events which in early ages occurred in their country, from which he was necessarily led to the inference, that the Greek accounts respecting those events were mere idle fictions, without any real foundation:—a paradox so monstrous, that at times he is forced to shrink from it, and very inconsistently to admit, that there may be some truth in the older European statements. The only way of our escaping from the dilemma in which he was placed, is that which I have already suggested. The Persians, it has been proved, had in reality no permanent mode of recording events in ancient times, nor is it likely that they had any, till long after those in question had taken place; and this consideration sufficiently accounts for the total ignorance they now betray upon the subject;—an ignorance which cannot upon any other ground be rationally explained. They adopted the Arabic writing along with the Mohammedan creed; and previously, the Syriac writing, which, it is most likely, they learned at the period when, during the reign of Constantine, they were converted to Christianity. Whether they had before the last-mentioned epoch the benefit of any alphabetic mode of designation is, I conceive, very

questionable;\* they were, indeed, for a long time under Greek rulers, but so were the Egyptians, and yet it is certain that this latter people had no alphabetic writing of their own till they became Christians. Analogy therefore would lead us to a corresponding inference with respect to the Persians; but at all events it is, I submit, clear, from the specimen I have given of their history of the latter part of what is called by them the Kaianian dynasty, that they could not have had any durable mode of preserving the memory of events till long after the termination of that dynasty. If, for instance, they had got any better writing than hieroglyphs within two hundred years of the period in question, it is quite impossible that they could have made such a nonsensical medley as they have, of the life of Alexander the Great. Still, however, from the time they came under Greek dominion, the government documents must have been in Greek; which circumstance would indirectly contribute to render their national writing more permanently legible, by affording a standard of reference. The effect of this is visible in the approach, made at the end of the Kaianian list, to the names of real history. Thus, I submit, is laid open to our view the mysterious cause why the Persians should be wholly ignorant of the ancient history of their country;—a cause which has operated exactly in the same way in the case of every Asiatic nation to the east of Persia. But I shall have an opportunity of placing this matter in a much stronger light when, in the prosecution of the work with which I am engaged, I come to treat of the language, the writing, and the history of China.

\* The Persepolitan inscriptions, which are probably the oldest now extant in Persia, are written in Syriac letters of an ancient form.



